

A COMPARATIVE STUDY OF PERSONALITY, INTELLIGENCE, AND PREVALENT  
PROBLEMS OF A GROUP OF FOURTH, FIFTH AND SIXTH GRADE  
PUPILS AT THE ATLANTA UNIVERSITY LABORATORY SCHOOL,  
ATLANTA, GEORGIA, WHO SCORED ABOVE AND BELOW ONE  
STANDARD DEVIATION FROM THE MEAN ON  
THE CALIFORNIA ACHIEVEMENT TEST

A THESIS

SUBMITTED TO THE FACULTY OF THE SCHOOL OF EDUCATION, ATLANTA UNIVERSITY  
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS  
FOR THE DEGREE OF MASTER OF ARTS

BY

ROBERT H. HAMILTON

SCHOOL OF EDUCATION

ATLANTA UNIVERSITY

AUGUST, 1955

Rxv T 133

DEDICATION

To My Wife

Constance Delores Hamilton

for her

Constant encouragement and inspiration  
during the hours of strenuous endeavor

**ACKNOWLEDGMENT**

The writer wishes to express his sincere thanks and appreciation to all who have contributed to the successful completion of this research. He wishes specifically to express direct appreciation and gratitude to the following: Dr. P. I. Clifford and Dr. O. W. Eagleson, advisor and co-advisor respectively, for their patience, direction, and guidance throughout the period of the research.

R.H.H.

## TABLE OF CONTENTS

Chapter	Page
I. INTRODUCTION .....	1
Rationale .....	1
Statement of the Problem .....	2
Limitation of Study .....	2
Purpose of Study .....	2
Definition of Terms .....	4
Description of Subjects .....	4
Locale of Study .....	4
Data Collecting Instruments .....	5
Research Method .....	5
Description of Instruments .....	5
Procedure .....	9
Value of the Study .....	10
II. SURVEY OF RELATED LITERATURE .....	12
Prefatory Statement .....	12
Theories of Intelligence .....	12
Theories of Personality .....	14
Information Related to Problems .....	16
Related Studies .....	18
III. PRESENTATION AND ANALYSIS OF DATA .....	31
Treatment of Data .....	31
Results of the California Test of Mental Maturity (Total Factors) .....	32
Results of the California Test of Mental Maturity (Language Factors) .....	39
Results of the California Test of Mental Maturity (Non-Language Factors) .....	42
Results of the California Test of Personality (Self- Reliance) .....	45
Results of the California Test of Personality (Sense of Personal Worth) .....	48
Results of the California Test of Personality (Sense of Personal Freedom) .....	51
Results of the California Test of Personality (Feeling of Belonging) .....	54
Results of the California Test of Personality (With- drawing Tendencies) .....	57
Results of the California Test of Personality (Nervous Symptoms) .....	60
Results of the California Test of Personality (Social Standards) .....	63



Chapter	Page
Results of the California Test of Personality (Social Skills) .....	66
Results of the California Test of Personality (Anti-Social Tendencies) .....	69
Results of the California Test of Personality (Family Relations) .....	72
Results of the California Test of Personality (School Relations) .....	75
Results of the California Test of Personality (Community Relations) .....	78
Results of the California Test of Personality (Comparison of Means with Percentile Ranks) .....	81
Results of the California Test of Personality (Personal Adjustment) .....	83
Results of the California Test of Personality (Social Adjustment) .....	86
Results of the California Test of Personality (Total Adjustment) .....	89
Results of the SRA Junior Inventory .....	92
Results of the SRA Junior Inventory (My Health) .....	92
Results of the SRA Junior Inventory (Getting Along with Other People) .....	95
Results of the SRA Junior Inventory (About Me and School) .....	98
Results of the SRA Junior Inventory (About Myself) .....	101
Results of the SRA Junior Inventory (About Me and My Home) .....	104
Results of the SRA Junior Inventory (Comparison of Problems with Norms) .....	107
Results of the SRA Junior Inventory (Total Problem Area) .....	108
Results of Correlations Between Tests .....	112
Correlations Between (Personal Adjustment) California Test of Personality and (Major Factors) California Test of Mental Maturity .....	112
Correlations Between (Social Adjustment) California Test of Mental Maturity .....	114
Correlations Between (Total Adjustment) California Test of Personality and (Major Factors) California Test of Mental Maturity .....	115
Correlations Between (Total Problems) SRA Junior Inventory and (Total Mental Factors) California Test of Mental Maturity .....	117
Correlation Results Between (Total Adjustment) California Test of Personality and (Total Problems) SRA Junior Inventory .....	118
Differences Between Correlations .....	118
Results of Difference Between Total Adjustment and Total Problems .....	119

Chapter	Page
Results of Difference Between Total Mental Factors and Total Adjustment .....	120
Results of Difference Between Total Problems and Total Factors .....	121
IV. SUMMARY AND CONCLUSION .....	122
Problem, Purposes, and Methodology .....	122
Summary of Related Literature .....	124
Findings .....	125
Conclusions .....	127
Implications .....	129
Recommendations .....	129
BIBLIOGRAPHY .....	131
APPENDIX .....	134

## LIST OF TABLES

Table	Page
1. Frequency Distribution of Raw Scores Made on Total Mental Factors Section of the California Test of Mental Maturity For the High Achieving and Low Achieving Pupils .....	32
2. Statistical Data Derived from Raw Scores Made on Total Mental Factors Component of the California Test of Mental Maturity for the High Achieving and Low Achieving Group ....	34
3. Descriptive Classification of Intelligence Quotients for High Achieving and Low Achieving Pupils According to Stanford-Binet Classification .....	35
4. Descriptive Classification of Intelligence Quotients Made on Total Mental Factors Component for the High Achieving and Low Achieving Pupils According to the California Test Manual .....	36
5. A Comparison of Mean Intelligence Quotients Made on Total Factors, Language Factors, and Non-Language Factors for the High Achieving and Low Achieving Pupils with Percentile Ranks from Test Norms .....	37
6. Statistical Data Derived from I.Q. Scores Made on Total Mental Factors, Language Factors, and Non-Language Factors by the High Achieving and Low Achieving Pupils .....	38
7. Statistical Data Derived from Raw Scores Made on Language Factors Component of the California Test of Mental Maturity for High Achieving and Low Achieving Group .....	39
8. Frequency Distribution of Raw Scores Made on Language Factors Section of the California Test of Mental Maturity for the High Achieving and Low Achieving Pupils ...,.....	40
9. Statistical Data Derived from Raw Scores Made on Non-Language Factor Component of California Test of Mental Maturity for the High Achieving and Low Achieving Group .....	42
10. Frequency Distribution of Raw Scores Made on Non-Language Section of the California Test of Mental Maturity for the High Achieving and Low Achieving Pupils .....	43
11. Statistical Data Derived from Raw Scores Made on Self-Reliance Component of the California Test of Personality for the High Achieving and Low Achieving Group .....	45

## Table

## Page

12.	Frequency Distribution of Raw Scores Made on Self-Reliance Component of Personal Adjustment for the High Achieving and Low Achieving Pupils .....	46
13.	Statistical Data Derived from Raw Scores Made on Sense of Personal Worth Component of the California Test of Personality by the High Achieving and Low Achieving Pupils..	48
14.	Frequency Distribution of Raw Scores Made on Sense of Personal Worth Component of Personal Adjustment for the High Achieving and Low Achieving Pupils .....	49
15.	Statistical Data Derived from Raw Scores Made on Sense of Personal Freedom Component of the California Test of Personality for the High Achieving and Low Achieving Group ....	51
16.	Frequency Distribution of Raw Scores Made on Sense of Personal Freedom Component of Personal Adjustment .....	52
17.	Statistical Data Derived from Raw Scores Made on Feeling of Belonging Component of the California Test of Personality for the High Achieving and Low Achieving Group ....	54
18.	Frequency Distribution of Raw Scores Made on Feeling of Belonging Component of Personal Adjustment .....	55
19.	Statistical Data Derived from Raw Scores Made on Withdrawing Tendencies Component of the California Test of Personality for the High Achieving Group and the Low Achieving Group .....	57
20.	Frequency Distribution of Raw Scores Made on Withdrawing Tendencies Component of Personal Adjustment for the High Achieving and Low Achieving Group .....	58
21.	Statistical Data Derived from Raw Scores Made on Nervous Symptoms Component of the California Test of Personality for the High Achieving Group and the Low Achieving Group ...	60
22.	Frequency Distribution of Raw Scores Made on Nervous Symptoms Component of Personal Adjustment for the High Achieving and Low Achieving Group on the California Test of Personality .....	61
23.	Statistical Data Derived from Scores Made on Social Standards Component of the California Test of Personality for the High Achieving Group and Low Achieving Group .....	63

## Table

## Page

24.	Frequency Distribution of Raw Scores Made on Social Standards Component of Social Adjustment Section for the High Achieving and Low Achieving Group on the California Test of Personality .....	64
25.	Statistical Data Derived from Raw Scores Made on Social Skills Component of the California Test of Personality by the High Achieving and Low Achieving Group .....	66
26.	Frequency Distribution of Raw Scores Made on Social Skills Component of Social Adjustment Section for the High Achieving and Low Achieving Group on the California Test of Personality .....	67
27.	Statistical Data Derived from Raw Scores Made on Anti-Social Tendencies Component of the California Test Of Personality for the High Achieving and Low Achieving Group .....	69
28.	Frequency Distribution of Raw Scores Made on Anti-Social Tendencies of Social Adjustment Component for High Achieving and Low Achieving Group on the California Test of Personality .....	70
29.	Statistical Data Derived from Raw Scores Made on Family Relations Component of the California Test of Personality for the High Achieving and Low Achieving Group .....	72
30.	Frequency Distribution of Raw Scores Made on Family Relations Component of Social Adjustment by the High Achieving and Low Achieving Group on the California Test of Personality ...	73
31.	Statistical Data Derived from Raw Scores Made on School Relations Component of the California Test of Personality for the High Achieving and Low Achieving Group .....	75
32.	Frequency Distribution of Scores Made on School Relations for the High Achieving and Low Achieving Group on Social Adjustment Section of the California Test of Personality ....	76
33.	Statistical Data Derived from Raw Scores Made on Community Relations Component of the California Test of Personality for the High Achieving Group and Low Achieving Group .....	78
34.	Frequency Distribution of Raw Scores Made on Community Relations Component for the High Achieving and Low Achieving Group on Social Adjustment Section of the California Test of Personality .....	79

Table	Page
35. Comparative Data of Mean Raw Scores Made by High Achieving and Low Achieving Group with Percentile Ranks from Test Norms on Different Components of Personal Adjustment .....	82
36. Comparative Data of Mean Scores Made by High Achieving Group and Low Achieving Group with Percentile Ranks from Test Norms for Different Components on Social Adjustment Section .....	82
37. Statistical Data Derived from Raw Scores Made on Personal Adjustment Component of the California Test of Personality for the High Achieving and Low Achieving Group .....	83
38. Frequency Distribution of Raw Scores Made on Personal Adjustment Component of the California Test of Personality by the High Achieving and Low Achieving Pupils .....	84
39. Statistical Data Derived from Raw Scores Made on Social Adjustment Component of the California Test of Personality by the High Achieving and Low Achieving Group .....	86
40. Frequency Distribution of Raw Scores Made on Social Adjustment Component of the California Test of Personality by the High Achieving and Low Achieving Group .....	87
41. Statistical Data Derived from Raw Scores Made on Total Adjustment Component of the California Test of Personality by the High Achieving and Low Achieving Group .....	89
42. Frequency Distribution of Raw Scores Made on Total Adjustment Component of the California Test of Personality by the High Achieving Group and the Low Achieving Group .....	90
43. Statistical Data Derived from Raw Scores Made on (My Health) SRA Junior Inventory by the High Achieving Group and Low Achieving Group .....	92
44. Frequency Distribution of Raw Scores Made on (My Health) SRA Junior Inventory for High Achieving Group and Low Achieving Group .....	93
45. Statistical Data Derived from Raw Scores Made on (Getting Along with Other People) SRA Junior Inventory by High Achieving and Low Achieving Group .....	95
46. Frequency Distribution of Raw Scores Made on (Getting Along with Other People) SRA Junior Inventory for the High Achieving and Low Achieving Group .....	96

Table	Page
47. Statistical Data Derived from Raw Scores Made on (About Me and School) SRA Junior Inventory for the High Achieving Group and Low Achieving Group .....	98
48. Frequency Distribution Derived from Raw Scores Made on (About Me and School) SRA Junior Inventory for the High Achieving Group and Low Achieving Group .....	99
49. Statistical Data Derived from Raw Scores Made on (About Myself) SRA Junior Inventory by High Achieving Group and Low Achieving Group .....	101
50. Frequency Distribution of Raw Scores Made on (About Myself) SRA Junior Inventory by High Achieving and Low Achieving Pupils .....	102
51. Statistical Data Derived from Raw Scores Made on (About Me and My Home) SRA Junior Inventory by the High Achieving Group and Low Achieving Group .....	104
52. Frequency Distribution of Raw Scores Made on (About Me and My Home) SRA Junior Inventory by High Achieving and Low Achieving Pupils .....	105
53. A Comparison of Mean Scores Made by the High Achieving and Low Achieving Group on Different Areas of the SRA Junior Inventory with Percentile Ranks for Test Norms ....	107
54. Statistical Data Derived from Raw Scores Made on (Total Problems Area) SRA Junior Inventory for the High Achieving Group and the Low Achieving Group .....	108
55. Frequency Distribution of Total Problems Checked by High Achieving and Low Achieving Group on the SRA Junior Inventory .....	109
56. A Summary of the Total Number of Different Problems within Each Problem Area Checked by the High Achieving Group and Low Achieving Group on the SRA Junior Inventory .....	111
57. Statistical Data Obtained from Results of Correlations Between (Personal Adjustment) California Test of Personality and (Major Factors) California Test of Mental Maturity for the High Achieving Group .....	113
58. Statistical Data Obtained from Correlations Between (Personal Adjustment) California Test of Personality and (Major Factors) California Test of Mental Maturity for Low Achieving Group .....	113

## Table

## Page

59. Statistical Data Obtained from Correlations Between (Social Adjustment) California Test of Personality and (Major Factors) California Test of Mental Maturity for the High Achieving Group .....	114
60. Statistical Data Obtained from Correlations Between (Social Adjustment) California Test of Personality and (Major Factors) California Test of Mental Maturity for the Low Achieving Group .....	115
61. Statistical Data Obtained from Correlations Between (Total Adjustment) California Test of Personality and (Major Factors) California Test of Mental Maturity for the High Achieving Group .....	116
62. Statistical Data Obtained from Correlations Between (Total Adjustment) California Test of Personality and (Major Factors) California Test of Mental Maturity for the Low Achieving Group .....	116
63. Statistical Data Derived from Correlations Between (Total Adjustment) California Test of Personality and (Total Mental Factors) California Test of Mental Maturity for High Achieving and Low Achieving Group .....	117
64. Statistical Data Derived from Correlations Between (Total Problems) SRA Junior Inventory and (Total Mental Factors) California Test of Mental Maturity for High Achieving and Low Achieving Group .....	118
65. Statistical Data Derived from Correlations Between (Total Adjustment) California Test of Personality and (Total Problems) SRA Junior Inventory for High Achieving and Low Achieving Group .....	119
66. Statistical Difference Obtained Between Correlations Made by High Achieving Group and Low Achieving Group on (Total Adjustment) California Test of Personality and (Total Problems) SRA Junior Inventory .....	120
67. Statistical Differences Between Correlations Made by High Achieving Group and Low Achieving Group on (Total Mental Factors) California Test of Mental Maturity and (Total Adjustment) California Test of Personality .....	120
68. Statistical Difference Derived from Correlations Made by High Achieving Group and Low Achieving Group Between (Total Problems) SRA Junior Inventory and (Total Mental Factors) California Test of Mental Maturity .....	121



## TABLE OF FIGURES

Figure	Page
1. Frequency Polygon of Raw Scores made on Total Mental Factors Section of the California Test of Mental Maturity for High Achieving and Low Achieving Pupils .....	33
2. Frequency Polygon of Raw Scores made on Language Factor of California Test of Mental Maturity for High and Low Achieving Pupils .....	41
3. Frequency Polygon of Raw Scores made by High Achieving and Low Achieving Group on Non-Language Factor of the California Test of Mental Maturity .....	44
4. Frequency Polygon of Raw Scores made by High Achieving and Low Achieving Pupils on Self-Reliance Component of Personal Adjustment Section of the California Test of Personality .....	47
5. Frequency Polygon Plotted from Raw Scores made on Sense of Personal Worth Component of Personal Adjustment Section of the California Test of Personality for High Achieving and Low Achieving Pupils .....	50
6. Frequency Polygon Plotted from Raw Scores made on Sense of Personal Freedom Component of the Personal Adjustment Component of the California Test of Personality for High Achieving and Low Achieving Group .....	53
7. Frequency Polygon Plotted from Raw Scores made on Feeling of Belonging Component of Personal Adjustment for the High Achieving and Low Achieving Group .....	56
8. Frequency Polygon Plotted from Raw Scores made by High Achieving and Low Achieving Pupils on (Withdrawing Tendencies) on the California Test of Personality .....	59
9. Frequency Polygon Plotted from Raw Scores made on (Nervous Symptoms Component) of the California Test of Personality for High Achieving and Low Achieving Pupils .....	62
10. Frequency Polygon Plotted from Raw Scores made on (Social Standards) of the California Test of Personality by the High Achieving and Low Achieving Group .....	65
11. Frequency Polygon of Raw Scores made on (Social Skills) of the California Test of Personality by High Achieving and Low Achieving Group .....	68

## Figure

## Page

12. Frequency Polygon of Raw Scores made on (Anti-Social Tendencies) of the California Test of Personality for High Achieving and Low Achieving Group .....	71
13. Frequency Polygon of Raw Scores made on (Family Relations) of the California Test of Personality for High Achieving and Low Achieving Group .....	74
14. Frequency Polygon Plotted from Raw Scores made on (School Relations) on the California Test of Personality for High Achieving and Low Achieving Group .....	77
15. Frequency Polygon Plotted from Raw Scores made on (Community Relations) on the California Test of Personality for the High Achieving and Low Achieving Group .....	80
16. Frequency Polygon Plotted from Raw Scores made by High Achieving and Low Achieving Pupils on Personal Adjustment Component of the California Test of Personality .....	85
17. Frequency Polygon Plotted from Raw Scores made by High Achieving and Low Achieving Group on Social Adjustment Component of the California Test of Personality .....	88
18. Frequency Polygon Plotted from Raw Scores made by High Achieving and Low Achieving Group on Total Adjustment Component of the California Test of Personality .....	91
19. Frequency Polygon Plotted from Raw Scores made on (My Health) SRA Junior Inventory by High Achieving and Low Achieving Group .....	94
20. Frequency Polygon Plotted from Raw Scores made on (Getting Along With Other People) SRA Junior Inventory by High Achieving and Low Achieving Group .....	97
21. Frequency Polygon Plotted from Raw Scores made on (About Me and School) SRA Junior Inventory for High Achieving and Low Achieving Group .....	100
22. Frequency Polygon Plotted from Raw Scores made on (About Myself) SRA Junior Inventory for High Achieving and Low Achieving Group .....	103
23. Frequency Polygon Plotted from Raw Scores made on (About Me and My Home) SRA Junior Inventory for the High Achieving and Low Achieving Group .....	106

Figure

Page

24.	Frequency Polygon Plotted from Raw Scores on Total Problems Checked by High Achieving and Low Achieving Group on SRA Junior Inventory .....	110
-----	---	-----

## CHAPTER I

### INTRODUCTION

Rationale.-- This study was prompted by consistent observation of certain pertinent factors in various classroom situations. Wide ranges in abilities and levels of achievement have been observed in many class groups. As these pupils progress through the grades, the scatter or spread of accomplishment increases rather than decreases. It is also the opinion of many authorities that this increase in variability is accompanied by an increase in individual problems. Without recognition of the constant increase in the spread or scatter of a group of pupils, the typical graded courses of study become inadequate to solve the problem of curriculum content. Teachers experience difficulty in reconciling the course of study and the spread of abilities of the pupils. The trend toward social promotion based on social maturity increases the problem.

In comparing the different traits of a selected group of pupils, the writer eliminated those who clustered around the mean in achievement and considered those who deviated to the right and to the left of the norm in the same environment. Such a procedure was followed with the assumption that by studying these deviant groups, it is possible that there will be finer discrimination of traits when compared to those scoring at or near the mean.

It is a common practice of teachers in the elementary schools to give little recognition to those who deviate from one extreme to another. As these extreme pupils progress from one grade to another, their maladjustments become increasingly manifested.

This research enabled the writer to obtain objective information related

to the relationship between personality, intelligence, and prevalent problems of a selected group of high achieving and low achieving pupils within the same parent population.

Statement of the Problem.-- The problem in this study was to compare the intelligence, personality traits, and prevalent problems of a selected group of fourth, fifth, and sixth grade pupils of the Atlanta University Laboratory School, Atlanta, Georgia who score above and below one standard deviation from the mean in achievement.

Limitations of Study.-- It is recognized by the writer that the disparity of boy-girl ratio in the two groups may have caused an error to possible sex differences in Personality Results. On this particular point, the California Test of Personality used in this study, stated that when the test was published, and a new set of data obtained from over a thousand pupils, there was a tendency for the girls' responses, possibly in two or three components, to average slightly higher than those of the boys.

There are at least three major restrictions or limitations related to the interpretation of the conclusions. First, the procedures used have not justified conclusions concerning causation. Second, the conclusions are valid only to the extent to which the test has been validated and a reliable measure of what it purports to measure. Third, the conclusions made within this study are justifiable only for the population from which the samples were drawn and of similar populations.

Purpose of the Study.-- The major purpose of this study is to compare and contrast the mental development, personality traits, and prevalent problems of a selected group of pupils scoring above and below one sigma from the mean in achievement.

The specific purposes of this study are as follows:

1. To identify the high achieving and low achieving pupils from achievement test results.
2. To describe overlapping of distribution of raw scores made by high achieving, and low achieving group.
3. To determine the prevalent problems common to each group.
4. To determine the prevalent problems common to both groups.
5. To determine the difference, if any, in personality traits of the high achieving and low achieving group.
6. To determine the difference, if any, in intelligence between the high achieving and low achieving group.
7. To determine the difference, if any, in prevalent problems common to the high achieving group and low achieving group.
8. To determine the relationship between intelligence and personality for the high achieving group.
9. To determine the relationship between intelligence and personality for the low achieving group.
10. To determine the relationship between intelligence and prevalent problems for the high achieving group.
11. To determine the relationship between intelligence and prevalent problems for the low achieving group.
12. To determine the relationship between personality and prevalent problems for the high achieving group.
13. To determine the relationship between personality and prevalent problems for the low achieving group.
14. To determine the difference, if any, between the "r's" for personality

and prevalent problems, intelligence and personality, and intelligence and prevalent problems.

Definition of Terms.--- The following terms which are used in this study will have the following meanings:

1. "High achieving" group will refer to those pupils scoring above one standard deviation from the mean on the California Achievement Test by E. W. Tiegs and L. P. Thorpe.
2. "Low achieving" group will refer to those pupils scoring below one standard deviation from the mean on the California Achievement Test by Tiegs and Thorpe.
3. "Achievement" as used in this study will refer to those traits which are measured by the California Achievement Test by Tiegs and Thorpe.
4. "Intelligence" refers to those traits which are measured by the California Short-Form Test of Mental Maturity by E. T. Sullivan, W. Clark and E. W. Tiegs.
5. "Personality" refers to those traits which are measured by the California Test of Personality by L. P. Thorpe, W. W. Clark and E. W. Tiegs.
6. "Prevalent problems" as used in this study refer to the characteristics of distracting behavior as listed in the respective items on the S R A Junior Inventory by Remmers and Bauernfeind.

Description of Subjects.--- The subjects used in this study were regularly-attending members of the fourth, fifth, and sixth grade classes of the Atlanta University Laboratory School, Atlanta, Georgia for the session 1954-55.

Locale of the Study.--- The study was made at the Atlanta University Laboratory School, Atlanta, Georgia.

Data Collecting Instruments.-- The following instruments were used in collecting data for the study:

1. The California Achievement Test, Elementary Form BB, by Ernest W. Tiegs and Louis Thorpe.
2. The California Shor-Form Mental Maturity Test, Form S, by Sullivan Clark, and Tiegs.
3. The California Test of Personality, Elementary, Form AA, by W. W. Clark and E. W. Tiegs.
4. The SRA Junior Inventory, Form A, by H. H. Remmers and R. H. Bauernfeind.

Research Method.-- The Normative-Survey Method of research, with special reference to the use of standardized tests and statistical treatment of scores, was used to collect and interpret the data required in the conduct of this research.

Description of Instruments.-- The purposes of this study were achieved through administering four standardized tests chosen to measure achievement, personality, intelligence and problems of elementary school children.

<sup>1</sup>  
The California Achievement Test, an instrument designed to measure pupil achievement, was used for the purpose of selecting subjects to be used in this study. Results from the raw scores made on this Achievement Test enabled the writer to dichotomize the group on the basis of individual scores falling above and below one standard deviation from the local mean.

The test is designed to measure the extent of pupil mastery in reading, vocabulary, reading comprehension, arithmetic reasoning, arithmetic fundamentals, mechanics of English and grammar, and spelling. Therefore, they

---

<sup>1</sup>E. W. Tiegs and L. Thorpe, California Achievement Test (Los Angeles, 1952).



are instruments for measuring pupil achievement in the fundamental reading, and language skills. The sub-tests are designed to provide a basis for planning remedial instruction in the area where individuals may be deficient.

According to the authors, The California Achievement Test possesses a high degree of validity based upon the careful selection of items found in the test. Items were selected after making a study of the curriculum objectives of city and state courses of study. A large number of items were tried out in widely separated areas of the United States based on tests given to more than 100,000 pupils. However, statistical data derived from the establishment of validity are not presented by the authors in the Test Manual.

The coefficients of reliability for the different sub-tests vary from .88 for reading vocabulary to .97 for total test. Correlations were obtained by averaging the inter-correlations of the different forms of the subject tests and for the complete Battery for a single grade range.

Intelligence was measured by The California Short-Form Mental Maturity<sup>1</sup> Test. The test was administered to fifteen high achieving and fifteen low achieving pupils of the fourth, fifth, and sixth grades. This is a diagnostic test of mental maturity which measures the maturity of spatial relationship, logical reasoning, numerical reasoning, and verbal reasoning.

Some of the sub-tests were presented in verbal form and others were presented in non-verbal form in order to obtain a separate evaluation of mental processes with and without language symbols.

The coefficients of reliability were computed by the split-halves method

---

<sup>1</sup>

E. T. Sullivan, W. W. Clark and E. W. Tiegs, The California Short-Form Mental Maturity Test (Los Angeles, 1950).

and corrected by the Spearman-Brown formula. The correlations range from .86 for Spatial Relationship to .95 for Total Mental Factors. The manual gives statistical data related to the correlations obtained for each sub-test and the standard error.

The authors of the test feel that no purely objective criteria exist for establishing the validity of intelligence tests. The California Short-Form was designed to measure, by group method, in one period most of the types of mental processes which are sampled by the individual Binet. Individual items were prepared and subjected to statistical analysis to determine difficulty and correlations with criteria, such as the Binet Mental Age, and the California Test of Mental Maturity total scores. Inter-correlations among the separate tests were computed, and the test data were also factor-analyzed by the Thurstone Centroid Method.

<sup>1</sup>  
Personality was measured by the California Test of Personality, which was administered to the subjects involved in this study. The primary purpose of this test is to reveal the extent to which the pupil is adjusting to the problems and conditions which confront him and is developing a normal, happy and socially effective personality.

Another purpose of the test is to identify the status of certain highly important factors in personality. The California Test of Personality is divided into two major sections: personal adjustment and social adjustment. The purpose of the first section is to indicate how the pupil feels and thinks about himself, his self-reliance, estimate of his worth, sense of personal freedom, and his feeling of belonging. In this section, the pupil reveals certain withdrawing and nervous tendencies which he may possess.

---

<sup>1</sup>W. W. Clark and E. W. Tiegs, The California Test of Personality (Los Angeles, 1953).

In the second section, there are several components which make up social adjustment. Its purpose is to show how the pupil functions as a social being; his knowledge of social standards, social skills, freedom from anti-social tendencies, and his family, school and community relationship.

The coefficients of reliability, number of cases, and standard errors of measurement are given in the manual for the sub-sections and totals of the California Test of Personality in terms of raw scores for various levels. These reliability coefficients have been computed with the Kuder Richardson formula.

The authors report that the California Test of Personality is based upon the study of over 1,000 criteria, or specific adjustment, patterns or modes of response to specific situations. Many of the criteria were validated by psychologists who either eliminated, reclassified, or restated about forty per cent of them. Other professional groups were used to study and select items. Items which were able to survive were administered to 100 students on end level.

1

The S R A Junior Inventory was used to identify the prevalent problems of the pupils involved in the study. This inventory is a needs and problems inventory for elementary children in grades four through eight. The Inventory consists of 213 statements of problems frequently expressed by elementary school children. It is divided into five areas: 1) My Health, 2) Getting Along with Other People, 3) About Me and My School, 4) About Myself, and 5) About Me and My Home.

Most of the items for the Inventory were selected through content analysis

---

1

H. H. Remmers and R. H. Bauernfeind, The SRA Junior Inventory (Chicago, 1951).

of "My Problems" essays written by hundreds of elementary school children. Additional items were secured from elementary school teachers, guidance counselors, pediatricians, and a comprehensive survey of the literature dealing with problems of elementary children.

Out of the total number of items received from various sources, 223 were selected to make up the problem inventory. This list was reviewed by psychologists, elementary school teachers, and guidance counselors. The questions were administered to several thousand pupils in all sections of the country. Results were analyzed by grade, sex, region of the country, community type, and income group.

Coefficients of reliability were computed by the Spearman-Brown and Kuder-Richardson formula. Correlations ranged from .80 for "About Me and My Home" to .90 for "Getting Along with Other People."

In evaluating the inventory for validity, the authors state that it was necessary to determine the ability of the test to predict an external criterion. In this Inventory, inspection of the items which a particular student checked made it difficult to obtain an external criterion. The items a pupil checked had validity for that pupil. When a child checked a problem, it was immediate evidence of the validity of that statement for the particular child--for that was the way the child felt.

From the limited information given by the authors in the manual, the validity of the Inventory is questionable and is recognized as a limitation in this study by the writer.

Procedure.— Prior to the administration of tests designed to measure aspects of personality, intelligence and prevalent problems of school children, an attempt was made to review related theories and studies cited by others in the literature.

Following a review of related literature, permission to carry out the research was obtained from the administration of the Atlanta University Laboratory School, Atlanta, Georgia. Effort was then made to orientate the pupils and teachers to the nature and scope of the research problem.

The California Achievement Test was administered to all pupils in the fourth, fifth, and sixth grade classes for the major purpose of selecting the subjects to be used in the study. The criterion for the selection of the subjects was determined by the position of each individual raw score from the arithmetic mean derived from the total raw scores in each class. Subjects scoring above one standard deviation from the mean were classified as "high achieving" pupils and those scoring below one standard deviation were called "low achieving" pupils. Pupils scoring within the range of one standard deviation to the right and to the left of the mean in achievement were eliminated from the study.

The California Test of Mental Maturity, the California Test of Personality, and the SRA Junior Inventory were administered to the subjects used in this study. Statistical data derived from raw scores made on the tests were assembled in appropriate tables and graphs.

The computation of essential statistics, namely: range of scores, mean, median, standard deviation, standard error, Pearson's "r", difference between "r's", and Fisher's "t" were applied.

The findings, conclusion, and implications derived from the analysis and interpretation of the data have been formulated and presented within this study.

Value of the Study.--- Children who deviate from the normal child physically, mentally, emotionally, or socially, place special demands upon

the school and home. Theoretically, one child out of every three are deviants within the school population. . Their development, progress, and adjustment will continue to be increasingly hampered and impaired if necessary provisions are not made for them.

If this study can arouse interest and draw attention upon the development of these deviant groups, making school officials and teachers interested in the needs of the children and offering them a healthy environment to develop their abilities equally as well as others, this study will have served its purpose.

## CHAPTER II

### SURVEY OF RELATED LITERATURE

Prefatory Statement.— The findings of related literature pertinent to this area of research have been organized under the following captions:

1. Theories of Intelligence
2. Theories of Personality
3. Information Related to Problems of Children
4. Related Studies Associated with Intelligence, Prevalent Problems, Achievement and Personality

Theories of Intelligence.— There appears to be little unanimity of opinion among psychologists as to the meaning of intelligence. It has been defined in various ways by various individuals. Many definitions of intelligence are given in terms of abstract intelligence, while others are in terms of adjustment.

<sup>1</sup>  
Thorndike emphasizes that several "kinds" of intelligence can be clearly distinguished. After forty years of study, he set apart three significant ones:

First: Abstract (verbal) Intelligence or ability with ideas, as in language and mathematics, and much of science and affairs.

Second: Mechanical, or ability to understand things, as skilled traders, and much of science.

Third: Social intelligence, or ability to understand persons, and other animals.

<sup>2</sup>  
Gates, in giving what he calls a "common sense" definition, states:

Intelligence has been conceived by many persons as a composite or organization of abilities to learn, to grasp broad and subtle

---

<sup>1</sup>  
E. L. Thorndike, Human Nature and the Social Order (New York, 1940), p. 57.

<sup>2</sup>  
A. Gates, et al., Educational Psychology (New York, 1942), p. 237.

facts, especially abstract facts, and to display flexibility and sagacity in seeking the solution of the problem.

<sup>1</sup>  
According to Garrett, the concept of general intelligence is too broad to be of much practical value. Many psychologists distinguish three kinds or three areas of intelligent activity. These areas are the abstract, the mechanical and the social. Abstract intelligence is exhibited in one's dealing with words, numbers, symbols and diagrams. The abstractly intelligent person is able to discover relations among symbols and solve problems with their aid.

<sup>2</sup>  
In 1904, Spearman announced his original theory which held that intelligence consisted of two factors - a general factor or energy and several specific energies, which he called "s". He later added certain group factors which were considered less general, widespread and homogeneous than "g" and more so than "s". The group energy could be found in several intellectual activities - more than the "s" and less than the "g" energy.

<sup>3</sup>  
George Stoddard, a distinguished student of intelligence, defines the term thusly:

Intelligence is the ability to undertake activities that are characterized by (1) difficulty, (2) complexity, (3) abstractness, (4) economy, (5) adaptiveness to a goal, (6) social value, and (7) the emergence of originals, and to maintain such activities under conditions that demand a concentration of energy and a resistance to emotional forces.

---

<sup>1</sup>  
Henry E. Garrett, Psychology (New York, 1950), p. 207.

<sup>2</sup>  
Wendell W. Cruze, Adolescent Psychology and Development (New York, 1953), p. 110.

<sup>3</sup>  
George D. Stoddard, The Meaning of Intelligence (New York, 1943), p. 4.



<sup>1</sup>  
Lee and Lee hold that intelligence may be said to be that characteristic of a person which determines his ability to make adequate responses and adjustments to his environment.

<sup>2</sup>  
Cruze says that although psychologists view intelligence from different angles, in general, their definitions of the term emphasize the adaptability of the organism to new and different situations.

<sup>3</sup>  
According to Strong, high intelligence is ordinarily associated with a pleasing personality, since intelligence involves insight, the ability to see relationships, and the capacity to comprehend.

From Spearman's Two Factor Theory, investigations have revealed that several factors are involved. The accumulation of additional data have lead to the development of Multiple Factor theories. Among such American psychologists are T. L. Kelley, Thurstone, Guilford, and others. Multiple Factor theories propose a number of group factors of varying breath, each of which may enter with different weights into different tests.

<sup>4</sup>  
Wechsler states that the main difficulty in the measurement of mental abilities is the absence of any truly quantitative scales. It is necessary to reach further back into the problem and begin with an analysis of the fundamental quantities in terms of which mental capacities as such are measured. The important thing is that in the end all mental capacities are

---

<sup>1</sup>Wendell W. Cruze, op. cit., p. 109.

<sup>2</sup>  
George R. Griffith, "The Relationship Between Scholastic Achievement of Men College Students," Journal of Applied Psychology, XXV (October, 1945), p. 36.

<sup>3</sup>  
David Wechsler, Range of Human Capacities (Baltimore, 1932), pp. 148-49.

<sup>4</sup>  
Anne Anastasi, Psychological Testing (New York, 1954), p. 125.

of personality:

We can classify individuals as having attractive or repugnant or indifferent personalities, but what constitutes personality itself, we are unable to state... personality remains something which seems to characterize the individual as a whole rather than a particular aspect of him.

<sup>1</sup>

Garrison says that personality has a past and the way to understand the personality is to understand the past. The child brings the past with him when he meets with a particular situation. These past experiences, according to Garrison, have molded his behavior patterns in such a way as to give continuity and stability to his personality. Therefore, the personality is somewhat resistant to environmental variations which accounts for most of the conflicts and much of the maladjustments which occur when there is a pronounced change in the environmental setting.

<sup>2</sup>

According to Tiegs, personality is not something separate and apart from ability and achievement but includes them; it refers rather to the manner and effectiveness with which the whole individual meets his personal and social problems, and indirectly, the manner in which he impresses his fellows.

Attempts to describe personality have brought about considerable controversy. Some authorities feel that there are specific personality traits while others, like Hartshore and May, who report that there is no such thing as a "trait" of honesty. There have been several instances where attempts have been made to classify all people into a few personality types. Among these are Sheldon, Jung, Kretschmer, and others. In spite of this popular practice, there is no reliable evidence that such a procedure is possible.

---

<sup>1</sup>

K. C. Garrison, Psychology of Exceptional Children (New York, 1952), pp. 205-06.

<sup>2</sup>

Ernest W. Tiegs, Manual of Directions (Los Angeles, 1942), p. 1.

Information Related to Problems of Children.--- When a child is born into culture, there are certain kinds of behavior which he must learn and which society calls normal. These norms for behavior seem to vary from one sub-culture to another and the Child is constantly finding difficulty and confronted with several problems in trying to adjust according to that which is expected of him within his culture.

<sup>1</sup>  
Buhler defines a problem in psychological terms. He states that a problem is:

A hinderance that disrupts the continuity of the processes within the individual or in a group. A problem in school disrupts the work, the desirable cooperation of the group, or the individual's ability to function adequately.... Problems that an individual presents to others are due to problems that he experiences with himself. To evaluate the nature and gravity of these inner problems is the difficult task that becomes partly the teacher's responsibility.

<sup>2</sup>  
Cole describes this as the constant struggle of the child to adjust to the world of persons and things, to maintain integrity against the external pressures, to develop toward well cherished goals. These are met with varying degrees of success. Many times the task can be beyond our power. Our needs can invite us, at any time, to perform actions which are in conflict with those around us. If we are constantly harassed, confined, overwhelmed, our anxieties mount and we may find ourselves getting out of the field altogether by retreating to earlier childhood solutions. "The ebb and flow of our successes are recorded in the sewing of our moods." The emotional quality of our experiences is a register of how we are making out

---

<sup>1</sup>  
Charlotte Buhler, et al., Childhood Problems and the Teacher (New York, 1952), pp. 12-15.

<sup>2</sup>  
Lawrence E. Cole, et al., Educational Psychology (New York, 1950), pp. 51-52.

with the struggle.

In discussing the so-called problem children, Hurlock<sup>1</sup> has this to say:

The acts that are wrong must be wrong tomorrow as well as today, not wrong one day and right the next. Unless consistency be maintained, the child is sure to be confused. Many so-called problem children are the results of inconsistent discipline.

<sup>2</sup>  
Erickson states that problems do not generally occur singly and, furthermore, that the problems of a student are not generally confined to one problem area.

Buhler writes:

The development of integrity is an important part of a healthy personality. The child who learns to accept himself and to find his place in the world accordance with real characteristics finds greater happiness and is usually better adjusted than the child who obtains his place through subterfuge. A child learns to accept himself when he is loved and respected for what he is and not urged to do more than he can or wants to do. He is motivated to do his best when his task is interesting... the constant strain for academic achievement which is characteristic of middle-class culture does much to develop unethical means to attain achievement.<sup>3</sup>

<sup>4</sup>  
As to behavior problems observed in different children, Stroud says that behavior becomes a problem, and the child displaying it becomes a problem child when deviation from the norms of conduct becomes sufficiently marked to require corrective measures.

From one standpoint, a child is recognized as being a behavior problem when his conduct, with some degree of regularity, is anti-social, unethical, or otherwise deviates from the norm in traits that are recognized as being socially important. From

<sup>1</sup>

Elizabeth Hurlock, Child Development (New York, 1950), p. 438.

<sup>2</sup>

Clifford E. Erickson, A Basic Text for Guidance Workers (New York, 1947), p. 200.

<sup>3</sup>

Charlotte Buhler, op. cit., pp. 205-06.

<sup>4</sup>

James B. Stroud, Psychology in Education (New York, 1946), p. 27.

another standpoint, a child is regarded as a problem when his conflicts and frustrations are not adequately resolved, with the results that he continues to live in a state of emotional turmoil.<sup>1</sup>

In describing the problems of intermediate-grade pupils, Wilson<sup>2</sup> states that the professional literature has almost distorted concepts of adolescence by stressing the turbulence of youth: the fluctuating moods, the social strivings, the sex pressures, the demanding goals, the family influences - all to be faced in a highly concentrated period of time. Therefore, it is not surprising that the child of the latency period, insulated by a variety of activities, group supports, and what often appears to be absence of emotional responsiveness, tends to be neglected.

Related Studies.--- Several studies have been made of the relationship between intelligence and achievement. Many of these studies reveal correlations between .30 to above .75 between grades obtained and intelligence test scores. Pyle and Snadden<sup>3</sup> made a study of bright and dull high school pupils. They found overlapping between the brightest and dullest students in a Detroit senior high school on three of a series of nine ideational tests. Overlapping was also indicated by the graphs of the results of three or four motor-learned tests. These experiments used only thirty-one bright students and twelve dull ones, but similar investigations performing comparable experiments with a greater number of children.

<sup>1</sup>

James B. Stroud, op. cit., p. 228.

<sup>2</sup>

Frances Wilson, "Mental-Health Practice in the Intermediate Grades," Mental Hygiene in Modern Education (Chicago, 1955), p. 197.

<sup>3</sup>

W. H. Pyle and G. H. Snadden, "An Experimental Study of Bright and Dull High School Pupils," Journal of Educational Psychology, XX (1935), pp. 262-69.

1

Waddell used 25 failing and 25 non-failing pupils in the fourth, fifth, and sixth grades in the Brown Summit Elementary School, in 1949, to make a comparative study to determine whether or not failing and non-failing pupils differ statistically in intelligence, personality and test achievement.

Intelligence was measured by the California Short-Form Test of Mental Maturity, 1947 S-Form. Personality was measured by the California Test of Personality - Elementary Form B. Achievement was measured by the Progressive Achievement Tests - Elementary Form A.

In mental maturity, she found a statistically significant difference between failing and non-failing pupils on the components: Manipulation of Area, Inference, Logical Reasoning, and Total Mental Factors. There was no statistical significant difference revealed between the failing and non-failing pupils on the components: Sensing Right and Left, Spatial Relationship, Similarities, Number Series, Numerical Series, Numerical Quantity, Numerical Reasoning, Vocabulary, Language Factors and Non-Language Factors.

The California Test of Personality revealed a statistically significant difference between failing and non-failing pupils on components: Withdrawing Tendencies, Self-Adjustment, Family Relations, Community Relations, Social Relations, Social Adjustment and Total Adjustment. There is no significant difference revealed between failing and non-failing pupils on the components: Self Reliance, Sense of Personal Worth, Sense of Personal Freedom, Feelings of Belonging, Nervous Symptoms, Social Standards, Social Skills, and Anti-Social Tendencies.

---

1

Sarah F. Waddell, "A Comparative Study of Failing and Non-Failing Pupils of Brown Summit Elementary School, 1949." Unpublished Master's Thesis, Department of Education, Atlanta University, 1949, pp. 205-06.

On the Progressive Achievement Test, significant differences were found between failing and non-failing pupils in all compartments except Meaning of Opposite. There was no significant difference in failing and non-failing pupils in "Meaning of Opposites."

<sup>1</sup>

Stagner<sup>1</sup> reports a study made by Laird with four groups of college students. The subjects consisted of one hundred ninety-five upper-class students at the University of Wisconsin; 175 upper-class students at Gustavus Adolphus College; 250 freshman men, and 150 freshman women at the University of Wisconsin were used in the study.

Different personality and achievement tests were used with each group. Findings of the study revealed that the difference in achievement among the students was slight; differences existing between the students in personality and intelligence; the more stable students made higher grades; higher emotionality leads to lower achievement, according to the results from the study.

William A. Owens and Wilma C. Johnson made a study to identify some of the distinctive characteristics and modes of adjustment of a sample of collegiate underachievers from responses to standardized personality inventories. The method employed was one of item analysis. Three personality inventories were administered to the college groups of underachievers, normal achievers and overachievers; predicted average was based upon A. C. E. scores obtained average from scholastic records for the Fall Quarter

---

<sup>1</sup>

Ross Stagner, "The Relationship of Personality to Academic Aptitude and Achievement," Journal of Educational Psychology, XXVI (May, 1933), pp. 648-60.

<sup>1</sup>  
of 1946.

Subjects were one hundred sixty-four male freshmen in Engineering at Iowa State College. Personality Tests and questionnaires employed were as follows:

1. The Minnesota Personality Scale
2. The Minnesota Multiphasi Personality Inventory
3. A so-called Personal Check List of twenty-five items

The findings revealed that on items which half were directly associated with social adjustment, the typical underachiever uniformly and without exception gave a better adjustment or more extroverted responses than the typical normal or overachiever.

It was noted that the underachievers were characterized by good adjustment in all areas tapped save those of Family Relationships and neuro-psychotic tendency.

It may also be pointed out that whereas three hundred twenty-five of the original items dealt with this latter are of adjustment, only ten such appear among the differential thirty-eight. Relatively speaking, this is a very light saturation and does not suggest that neurotic or psychotic forms of adjustment were predominantly associated with the scholastic underachievement of the present subjects, according to the writers.

A roughly parallel investigation of overachievement conducted by J. C. Heston<sup>2</sup> of DePauw University, in 1947, affords some interesting evidence of

<sup>1</sup>  
William A. Owens and Wilma C. Johnson, "Some Measured Personality Traits of Collegiate Underachievers," Journal of Educational Psychology, XL (1949), 41-43.

<sup>2</sup>  
Ibid., p. 43.



contrasting, confirmatory, and supplementary character. Heston found that his overachievers were characterized by social introversion and lack of confidence, good family adjustment, and emotional stability. In spite of the application of different measuring instruments to different student population, his overachievers seem to be near the opposite end of a continuum from the underachievers of Owens and Johnson.

<sup>1</sup>  
Spinelle made a study of intelligence at the University of Detroit, to reveal the value of intelligence quotients, chronological age, and measures obtained by the Link Inventory of Interests and Activities for the prediction of scholastic achievement. This study was based upon 42 Junior high school girls. For each of the forty-two girls used in the study eleven variables were obtained from 157 items in the inventory. These variables were:

1) Intelligence quotients, 2) Chronological age, 3) Non-academic honor point average, 4) Academic honor point average, 5) Citizenship honor point average, 6) Total honor point average, 7) Personality quotients, 8) Social Initiative, 9) Self-determination, 10) Economic Self-determination, and 11) Adjustment to the opposite sex.

The relation of intelligence quotients to honor points average was found to be the same magnitude as other investigators have found in similar situations. The intelligence quotients correlate .37 with non-academic honor point averages. This may be said to be a typical finding, because of the fact that most investigators have found that achievement in terms of honor points based upon teachers' marks in non-academic school subjects

---

<sup>1</sup>  
Leo Spinelle, "The Relationship of Personality Scores to School Marks and Intelligence Quotients," Journal of Educational Psychology, XX (November, 1944), 289-94.

does not correlate .50 with academic honor point averages. The highest correlation was found between intelligence quotients and total honor points averages, which was .58. The intelligence quotients correlate .45 with citizenship honor point averages. The intelligence quotients correlate to a fair degree with measures of scholastic achievement.

At the present time, there exists little conclusive evidence of a positive relationship between intelligence and personality. Previous studies have shown, however, that certain personality traits are common to those of high intelligence and common traits associated with those of low intelligence.

As a part of a city survey in 1940, all fourth grade pupils in Appleton, Wisconsin Public Schools were given the California Test of Personality.<sup>1</sup> According to Flory, Alden and Simmons, analysis of the results of the test showed that ten per cent of the whole group were extremely maladjusted. Out of a total of twenty-six, twenty-three remained in school during the two year period of the experiment. Each teacher was to use her own devices in bringing about personality adjustment. At the end of the two year period, eighteen of the twenty-three children showed definite gains in personality status. Four of the five children with no gain or losses had IQ's below 100, one as low as 77, and another had an IQ of 88. Two of the four pupils in the group with small personality gains had IQ's of 84 and 98, respectively, but the other two had IQ's of 116 and 117. While two pupils in the group had IQ's below 100, there were six pupils with IQ's above 110.

---

1

Charles D. Flory, Elizabeth Alden, and Madeline Simmons, "Classroom Teachers Improve the Personality Adjustments of Their Pupils," Journal of Educational Research, XXXVIII (September, 1944), 1-8.

The study shows that there is a slight relationship between IQ level and the amount of gain in personality status. The writers conclude that the regular classroom teacher will be most successful in her attempts to improve the personalities of her brighter pupils.

1

Fleming made a study to obtain information related to the pleasing personality of high school girls, and to obtain its relation to a number of other traits. Twenty-two girls of the ~~Horace~~ Mann School of New York were used. The personality traits were obtained from a rating scale and intelligence quotients were determined by the Terman Group Test of Intelligence. Physical status, such as heights and weights, were secured from the physician's office.

The findings revealed that pleasing personality was positively related to intellectual enthusiasm, the capacity for independent thought and independent work, to persistence, to industry, to social adaptability, to executive ability, dependability, self-control, and to good manners. The ratio between heights and weights show no relation to pleasing personality. There is no relation between pleasing personality and the intelligence quotient. The correlation between pleasing personality and chronological age was .25 and between pleasing personality and mental age .42. A significant correlation of .69 was found between pleasing personality, good manners, chronological age, and mental age.

A study of 4,797 girls, 4,264 boys taken from 36 states, 310 communities and 455 schools in the United States, was made by William McGhee and

---

1

Edwin G. Fleming, "The Pleasing Personality of High School Girls as Related to Other Traits and Measures," Journal of Educational Sociology, VI (May, 1933), 401-09.

1

W. Drayton Lewis. The mentally superior pupils were selected from grades 4 to 8, scoring in highest 10 per cent in terms of intelligence quotients based on Kuhlmann-Anderson Tests. The retarded group were pupils who scored in the lowest 10 per cent on the same test.

There were two measures of personality used by McGhee and Lewis. They are: 1) the personality scores on the B. P. C. Personal Inventory, and 2) the Teacher's Ratings of their pupils for the presence of 70 designated personality traits. The data from this study indicate that mentally retarded children are less well adjusted in personality reactions than are mentally superior children.

Several studies have been made related to the problems of children as they are associated with intelligence, achievement and personality. Onie Cooke Thompson<sup>2</sup> used the Mooney Problem Check List in her study as she compared the problems of fifty eighth grade students with the problems of fifty twelfth grade students. She found that there was a tendency for the eighth graders to check more troublesome problems than those of the twelfth grade. The boys showed a tendency to identify a larger number of problems than the girls. Thompson said that in all areas of the check list, there was evidence that as youth grow older, there is a decrease in the number of problems of which they are conscious, or if they are conscious of them, the

<sup>1</sup>  
William McGhee and W. D. Lewis, "A Comparison of Certain Personality Characteristics of Mentally Superior and Mentally Retarded Children," Journal of Educational Research, XXXI (April, 1942), 600-10.

<sup>2</sup>  
Onie Cooke Thompson, "A Comparative Study of the Eighth and Twelfth Grade Classes in Lancaster Training High School, Lancaster, South Carolina." Unpublished Master's Thesis, Department of Education, Atlanta University, 1951.

youth do not consider them as being important enough to identify as being troublesome.

Teachers who are living and working with fourth, fifth, and sixth<sup>1</sup> grades find the period difficult to understand. Frances M. Wilson made a study of children in the intermediate grades with the major purpose of trying to understand the problems of these children.

The methods employed in collecting the data are those which may be used by classroom teachers to do an effective job of learning more about their children. Two thousand boys and girls were used in the study. They represented varied intellectual and social levels. Boys and girls submitted various personal documents and compositions on "What I Criticize About Myself," "What Others Criticise About Me," "What Makes Me Mad," "If I Were Mother," etc. Case studies of bright, normal, dull and delinquent students were made. Classes were observed and activities of students were noted. Teachers wrote about their own life during their intermediate years, and parents reported on problems which they are most concerned with.

Review of findings indicate that television viewing accounts for almost four hours a day in the lives of the vast majority of these children. It was found that the highest listed on "things others criticize in me" is "looking at television too much."

Perhaps the most striking finding from the time schedule is the number of chores performed by these children. Life is an almost continuous trip "to the store for mother." Criticism about their physical appearance was

---

1

National Society for the Study of Education, Mental Health in Modern Education, The Fifty-Fourth Yearbook of the N.S.S.E., Part II (Chicago, 1955), pp. 195-215.

voiced by approximately 50 per cent of the group.

The following conclusions were indicated by the writer related to the mental-health problems of the children:

1. Meeting feelings of inadequacy resulting from their striving for status which conflicts with their incomplete physical development, their emotional maturity, and their social acceptance.
2. Handling feelings of anxiety arising from fear of adult disapproval, coupled with feelings of frustration stemming from their efforts to conform.
3. Adjusting to pressure imposed by sibling and peer-group rivalry.
4. Accepting physical limitations. Their efforts to compensate for their dissatisfaction sometimes lead to psychological difficulties.
5. Adjusting to feelings of rejection which are engendered by the demands placed upon them by adults for completion of chores, meeting work standards, and "growing up," which they interpret "if they loved me, they would not make these demands of me."

1

Frances Miller<sup>1</sup> describes a study where the data were obtained from records of individual examinations of 1,628 children selected from a total of 16,944. These records were checked and compiled by psychologists and psychiatrists from individual examinations for the Bureau of Child Study of the Chicago Board of Education.

These examinations and records usually include an individual mental test, achievement tests, physical tests and observations. There are reports from

---

1

Frances A. Miller, "Truancy and Classroom Disorders as Symptoms of Personality Problems," Journal of Educational Psychology, XLI (1950), 97-109.

interviews with parents, social agencies, truant officers, physicians and others.

The results of the study showed that children who have history of truancy or conspicuous classroom disorder have been shown to be children with high incidence of other factors. They have several physical handicaps. According to the study, children who choose truancy rather than classroom disorder have more home problems: crowded homes, families on relief, parents or siblings delinquent or criminal.

From personal interviews with teachers of the third, fourth, and fifth grades, Hanna<sup>1</sup> found the pupils who presented the most persistent and troublesome personality and behavior difficulties. The teachers rated each one of these problem children on the Haggerty-Olson-Wickman Rating Scale.

The results of this study showed that the general level of mental ability of that group to be below normal, the achievement of the group to be retarded, their social maturity at the expected level, and their mechanical aptitude at a very low level of possibilities.

John W. Harris<sup>2</sup> made a study of the tested differences in problem and non-problem pupils in the sixth, seventh and eighth grades. He found that the group of non-problem children had achieved a significantly higher level of mental maturity than the group of problem children and were superior in their adjustment to life situations over the group of problem children.

---

<sup>1</sup> Orleans Hanna, "A Study of Ten Children with Behavior Problems Enrolled in the Calhoun County Training School." Unpublished Master's Thesis, Department of Education, Atlanta University, 1949.

<sup>2</sup> John W. Harris, "A Study of the Tested Differences in Intelligence, Achievement, Personality and Prevalent Problems of Problem and Non-Problem Pupils in the Sixth, Seventh and Eighth Grades of Carver High School, Dawson, Georgia." Unpublished Master's Thesis, Department of Education, Atlanta University, 1954.

However, both groups were experiencing the same level of school accomplishment.

In checking the personal problems of both groups, Harris found that the problem and non-problem children were equally plagued by the same personal problems which were troubling them.

Many persons engaged in educational research today make use of data which, in some cases, are out of date. Still others, to an extent, overlook new areas of knowledge and new studies which are being made. Educational research should be a continuous process if findings and conclusions are to be valid and established views vitalized.

The literature described in this survey presents conflicting theories regarding intelligence and personality. However, each investigator has given recognition to the importance of intelligence and personality as they relate to achievement. It was observed that the exact nature of intelligence is unknown; but it can be measured quantitatively by the number of tasks an individual can do. A general conclusion that develops from the literature is that personality is the sum total of the traits and characteristics of an individual; and it is somewhat related to intellectual achievement. Further, the literature reveals that problems of children arise from the difficulty they have in adjusting to that which is expected of them within their own cultures. And, finally, if they are to improve in their achievement, through intelligence and personality, more attention must be devoted to their personal problems.

Related studies reveal, on a whole, that the child whose intellectual development is above average is generally about the average in health, special aptitude, size and sociability. The correlation between academic



achievement and intelligence is high in a positive direction; however little conclusive evidence of positive relationship between personality and intelligence is available.

## CHAPTER III

### PRESENTATION AND ANALYSIS OF DATA

Treatment of Data.--- The data treated in this section of the thesis were obtained through the administration of three instruments, namely: The California Test of Mental Maturity, the California Test of Personality, and the SRA Junior Inventory. Data derived from test results are presented under the following captions: Results of the California Test of Mental Maturity, Results of the California Test of Personality, Results of the SRA Junior Inventory, Correlation Results Between Tests, and Results of Differences Between Correlations.

The mean, standard deviation, standard deviation, standard error of the mean, standard error of the difference in means, difference between means, Fisher's "t", Pearson's "r", and difference between "r's are the statistical measures applied to the raw scores made by the subjects.

The criterion of reliability for the measures of "significant difference" was set at a "t" of 2.04 at the five per cent level of confidence. Any differences between means which reveal a "t" ratio of 2.04 and above are considered statistically significant throughout this study.

For testing the significance of a coefficient of correlation, Fisher's "t" was applied for the purpose of accepting or rejecting the null hypothesis. An obtained "t" of 2.16 and above, with thirteen degrees of freedom is considered statistically significant at the five per cent level of confidence, giving evidence to reject the null hypothesis.

Since samples used in this study were small, it was well to consider testing differences between correlations by testing differences between "z" coefficients. An obtained "t" of 2.17, with twelve degrees of freedom, is

considered significant at the five per cent level of confidence.

Results of the California Test of Mental Maturity (Total Factors).--- Data obtained from raw scores made on Total Factors Component of the California Test of Mental Maturity which were made by fifteen high achieving and fifteen low achieving pupils of the Atlanta University Laboratory School, Atlanta, Georgia are presented in Tables 1 and 2, and Figure 1.

The distribution of raw scores made on Total Mental Factors by the fifteen high achieving and fifteen low achieving pupils is presented in Table 1, Figure 1, and shows graphically the distribution of the raw scores

TABLE 1

FREQUENCY DISTRIBUTION OF RAW SCORES MADE ON TOTAL MENTAL FACTORS SECTION OF THE CALIFORNIA TEST OF MENTAL MATURITY FOR HIGH ACHIEVING AND LOW ACHIEVING PUPILS

Scores	High Frequency	Low Frequency
115-119	1	0
110-114	1	0
105-109	2	0
100-104	2	0
95- 99	2	0
90- 94	2	0
85- 89	0	0
80- 84	0	0
75- 79	3	0
70- 74	1	2
65- 69	1	3
60- 64	0	3
55- 59	0	3
50- 54	0	1
45- 49	0	2
40- 44	0	0
35- 39	0	1

made by the two groups. The polygon indicates slight overlapping of scores made by the high achieving group and the low achieving group. There were two high achieving and five low achieving pupils identified between the

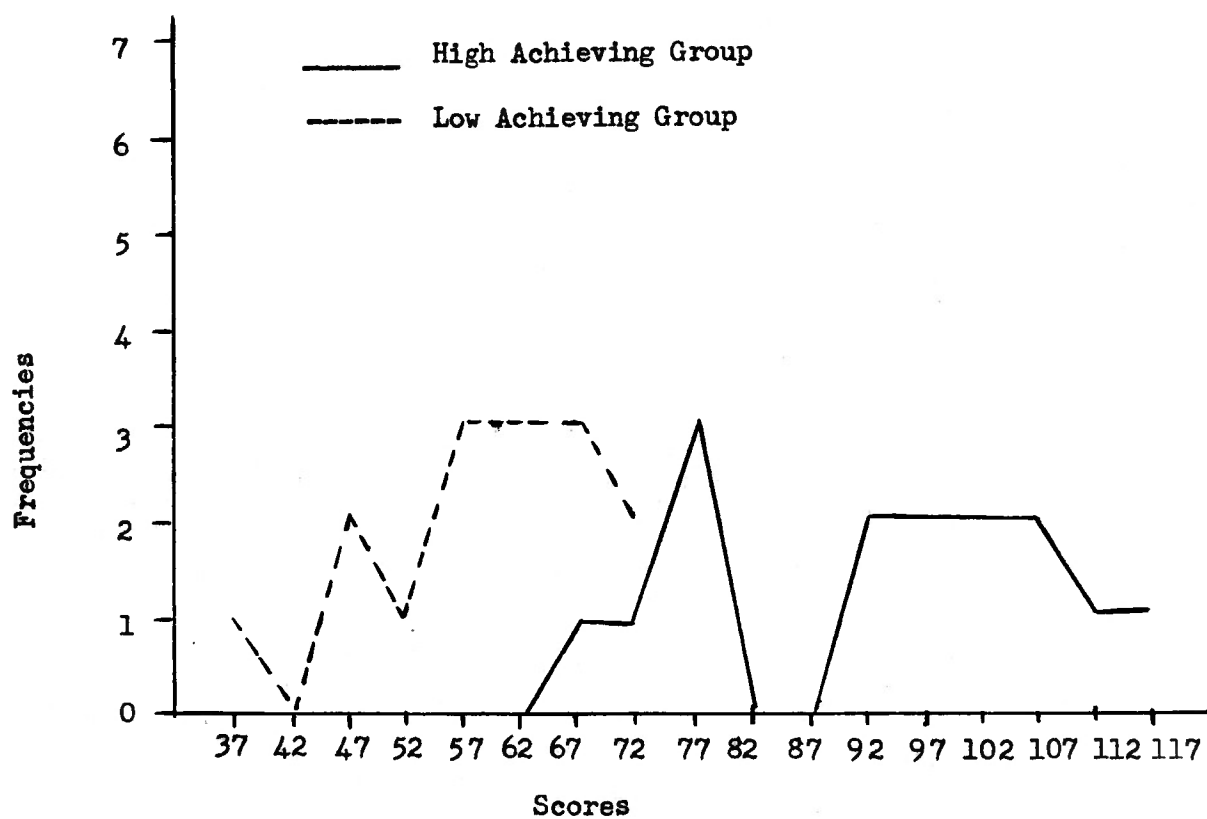


Fig. 1. - Frequency polygon of raw scores made on Total Mental Factors Section of the California Test of Mental Maturity for High Achieving and Low Achieving pupils

interval 67-72 where overlapping was manifested. The remaining high achieving pupils scored above this interval, and the remaining low achieving pupils scored below the interval.

The mean score made by the high achieving group is 93.30, which is 33.76 points greater than the mean score of 59.54 made by the low achieving group. As indicated in Table 2, the difference in means reveals a "t" value which is statistically significant in favor of the high achieving group.

TABLE 2

STATISTICAL DATA DERIVED FROM RAW SCORES MADE ON TOTAL MENTAL FACTORS COMPONENT OF THE CALIFORNIA TEST OF MENTAL MATURITY FOR THE HIGH ACHIEVING AND LOW ACHIEVING GROUP (N 15)

Group	Mean	Median	S.D.	S.E.	SED <sub>m</sub>	M <sub>1</sub> -M <sub>2</sub>	"t"
High Achieving	93.30	96.75	15.90	4.25	5.02	33.76	6.74*
Low Achieving	59.54	60.00	10.01	2.68			

\*

Significant difference

There was an additional interest in comparing the Intelligence Quotients for the two groups with the Stanford-Binet Classification, and the classification listed in the Test Manual for The California Test of Mental Maturity. Table 3, shows the Classification of the Intelligence Quotients according to the Stanford-Binet Classification for the high achieving and the low achieving group. None of the subjects in the low achieving group had I.Q.'s of 120 and above. In the high achieving group, one had an I.Q. between 140-169 which is classified as Very Superior and seven had I.Q.'s between 120-139 which are

TABLE 3

DESCRIPTIVE CLASSIFICATION OF INTELLIGENCE QUOTIENTS FOR HIGH ACHIEVING AND LOW ACHIEVING PUPILS ACCORDING TO THE STANFORD-BINET CLASSIFICATION\*

Intelligence Quotients	Descriptive Classification	Low Group	High Group	Total
140-169	Very Superior	0	1	1
120-139	Superior	0	7	7
110-119	High Average	2	5	7
90-109	Normal or Average	4	2	6
80- 89	Low Average	5	0	5
70- 79	Borderline Defective	4	0	4
30- 69	Mentally Defective	0	0	0

\*

Anne Anastasi, Psychological Testing (New York, 1954), p. 189.

classified as Superior. Two low achieving pupils and five high achieving pupils had I.Q.'s between 110-119, classifying them as High Average. Four low achieving pupils and two high achieving pupils had I.Q.'s between 90-109, receiving a classification of Normal or Average. There were no high achieving pupils with I.Q.'s less than 90, but there were five low achieving pupils classified as Low Average with I.Q.'s between 80-89 and four Borderline Defectives between 70-79. There were no pupils in either group classified as Mentally Defective with I.Q.'s between 30-69.

Table 4, gives a Classification of Intelligence Quotients according to the California Test Manual From Total Mental Factor on the California Test of Mental Maturity. In the high achieving group, there were four pupils

classified as Very Superior, making I.Q. scores from 130 and above. Five of the high achieving pupils were classified as Superior, having I.Q.'s between 115-129. There were no pupils in the low achieving group who were classified as Very Superior or Superior; however, there were four low achieving pupils and six high achieving pupils classified as High Average, having I.Q.'s between 100-114. Between 85-99, six low achieving pupils were classified as Low Average. There were no pupils in the high achieving group who were classified as Low Average. In the low achieving group, five pupils were classified as Inferior, with I.Q.'s between 70-84. There were no pupils in either group having I.Q.'s below 70 and classified as Very Inferior.

TABLE 4

DESCRIPTIVE CLASSIFICATION OF INTELLIGENCE QUOTIENTS MADE ON TOTAL MENTAL FACTORS COMPONENT FOR THE HIGH AND LOW ACHIEVING PUPILS ACCORDING TO THE CALIFORNIA TEST MANUAL\*

Intelligence Quotients	Descriptive Classification	Low Group	High Group	Total
130- and Above	Very Superior	0	4	4
115-129	Superior	0	5	5
100-114	High Average	4	6	10
85- 99	Low Average	6	0	6
70- 84	Inferior	5	0	5
Below 70	Very Inferior	0	0	0

\*

California Test of Mental Maturity, Manual of Directions (Los Angeles, 1950), p. 5.

In Table 5, a comparison is made of the mean I.Q. scores made by the high achieving and low achieving pupils derived from scores made on Total

Mental Factors, Language Factors and Non-Language Factors of the California Test of Mental Maturity.

On Total Mental Factors, the I.Q. scores made by the high achieving group range from a low of 100 to a high of 142, with a mean I.Q. of 117.22 which is equivalent to a percentile rank of 80 when compared with the norms. The range of I.Q. scores for the low achieving group are from a low of 77 to a high of 113, with a mean I.Q. of 90.02 which is equivalent to a percentile rank of 30.

TABLE 5

A COMPARISON OF MEAN INTELLIGENCE QUOTIENTS MADE ON TOTAL FACTORS, LANGUAGE FACTORS, AND NON-LANGUAGE FACTORS FOR THE HIGH ACHIEVING AND LOW ACHIEVING PUPILS WITH PERCENTILE RANKS FROM TEST NORMS

FACTORS	HIGH ACHIEVING		LOW ACHIEVING	
	Mean I.Q. Score	Percentile Rank	Mean I.Q. Score	Percentile Rank
Total Factors	117.22	80	90.02	30
Language Factors	121.34	90	81.65	10
Non-Language Factors	124.00	95	103.65	60

The I.Q. scores derived from Language Factors Component of the California Test of Mental Maturity for the high achieving group range from a low of 101 to a high of 142, with a mean I.Q. of 121.34 which is equivalent to a percentile rank of 90. For the low achieving group, the range of I.Q. scores is from a low of 56 to a high of 102, with a mean I.Q. of 81.65 which corresponds to a percentile rank of 10.



On Non-Language Factors, the high achieving group made I.Q. scores ranging from a low of 77 to a high of 143, with a mean I.Q. of 124.00 which is equivalent to a percentile rank of 95. The low achieving group made I.Q. scores ranging from a low of 76 to a high of 133, with a mean I.Q. score of 103.65 which is equivalent to a percentile rank of 60.

In Table 6, statistical data derived from I.Q. scores made on different components of the California Test of Mental Maturity for the high achieving and low achieving pupils are presented. On total mental factors, the mean I.Q. score made by the high achieving group is 27.20 I.Q. points higher than the mean I.Q. made by the low achieving group. This difference in I.Q. points reveal a "t" ratio which is statistically significant in favor of the high achieving group.

TABLE 6

STATISTICAL DATA DERIVED FROM I.Q. SCORES MADE ON TOTAL MENTAL FACTORS, LANGUAGE FACTORS AND NON-LANGUAGE FACTORS BY THE HIGH ACHIEVING AND LOW ACHIEVING PUPILS

FACTORS	HIGH ACHIEVING			LOW ACHIEVING			$M_1 - M_2$	"t"
	Mean	S.D.	S.E.	Mean	S.D.	S.E.		
Total Mental	117.22	11.56	3.89	90.02	13.68	3.66	27.20	5.09*
Language	121.34	12.10	3.24	81.65	13.35	3.54	39.69	8.24*
Non-Language	124.00	15.45	4.13	103.65	18.60	4.97	20.35	3.16*

\*

Significant difference

The mean I.Q. score made on Language Factors Component of the California Test of Mental Maturity by the high achieving group and the low achieving group, reveals a difference between mean I.Q. scores of 39.69 which is

significant in favor of the high achieving group.

On the Non-Language Component, the mean I.Q. score for the high achieving group is 124.00, which is 20.35 I.Q. points greater than a mean I.Q. score of 103.65 made by the low achieving group. The obtained "t" ratio of 3.16 is significant in favor of the high achieving group.

Results of the California Test of Mental Maturity (Language Factors).--

Statistical data derived from raw scores made by high achieving and low achieving group on Language Factors Component are presented in Table 7. The mean score for the high achieving group is 45.06, which is 27.13 points above the mean score for the low achieving group. This difference in means reveal a "t" ratio of 7.52 which is statistically significant in favor of the high achieving group.

TABLE 7

STATISTICAL DATA DERIVED FROM RAW SCORES MADE ON LANGUAGE  
FACTORS COMPONENT OF THE CALIFORNIA TEST OF MENTAL  
MATURITY FOR THE HIGH ACHIEVING AND LOW  
ACHIEVING GROUP

Group	Mean	Median	S.D.	S.E.	SED <sub>m</sub>	M <sub>1</sub> - M <sub>2</sub>	"t"
High Achieving	45.06	43.00	12.20	3.26	3.61	27.13	7.52*
Low Achieving	17.93	19.25	5.84	1.56			

\*

Significant difference

A frequency distribution of raw scores made by the high achieving group and the low achieving group on Language Factors Component is presented in Table 8. Figure 2, gives a graphic presentation of the raw scores made by

both groups and reveals the extent of overlapping. There is slight overlapping of scores made by both groups between the interval 25-29, consisting of three high achieving pupils and one low achieving pupil. The remaining low achieving pupils scored below this interval.

TABLE 8

FREQUENCY DISTRIBUTION OF RAW SCORES MADE ON LANGUAGE  
FACTOR SECTION OF THE CALIFORNIA TEST OF MENTAL  
MATURITY FOR HIGH ACHIEVING AND LOW  
ACHIEVING PUPILS

Scores	High Frequency	Low Frequency
65-69	1	0
60-64	2	0
55-59	1	0
50-54	2	0
45-49	1	0
40-44	4	0
35-39	1	0
30-34	0	0
25-29	3	1
20-24	0	6
15-19	0	4
10-14	0	2
5- 9	0	2

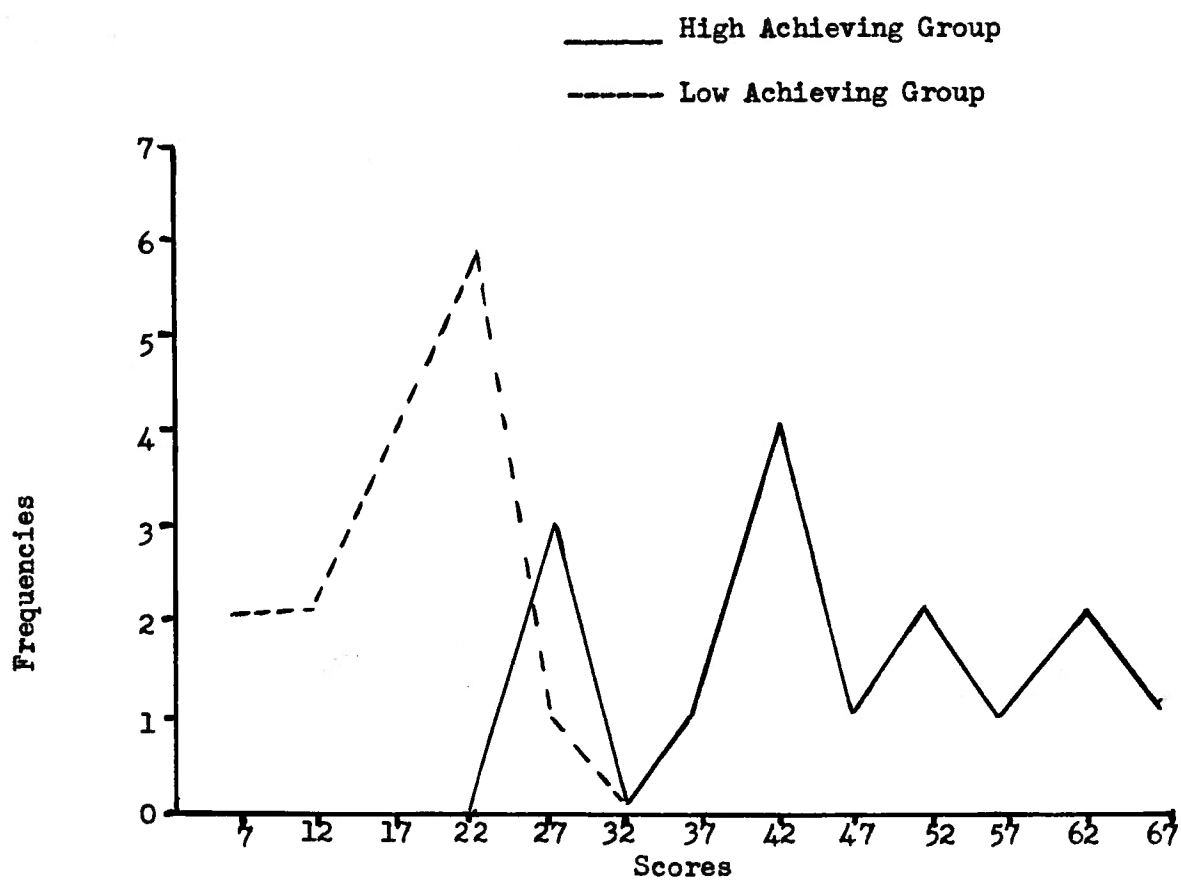


Fig. 2.- Frequency polygon of raw scores made on Language Factor of California Test of Mental Maturity for High and Low Achieving pupils

Results of the California Test of Mental Maturity (Non-Language Factors)— Statistical data obtained from raw scores made by high achieving and low achieving pupils are presented in Table 9. The mean score for the high achieving group is 6.60 points above the mean score for the low achieving group. This difference between means reveals a "t" ratio of 2.41 which is significant in favor of the high achieving group

TABLE 9

STATISTICAL DATA DERIVED FROM RAW SCORES MADE ON NON-LANGUAGE FACTORS  
COMPONENT OF THE CALIFORNIA TEST OF MENTAL MATURITY FOR THE HIGH  
ACHIEVING AND LOW ACHIEVING GROUP

Group	Mean	Median	S.D.	S.E.	SED <sub>m</sub>	M <sub>1</sub> -M <sub>2</sub>	"t"
High Achieving	48.20	49.25	6.49	1.74	2.75	6.60	2.41*
Low Achieving	41.60	44.25	7.96	2.13			

\*

Significant difference

A frequency distribution of raw scores made by the two groups on Non-Language Factors Component is presented in Table 10. Figure 3, gives a graphic presentation of the raw scores made by both groups. As indicated in Figure 3, there is overlapping of scores manifested from the lowest interval of scores to the highest interval; however, between the interval 42-47, there were five low achieving pupils making scores, and no high achieving pupils.

TABLE 10

FREQUENCY DISTRIBUTION OF RAW SCORES MADE ON NON-LANGUAGE SECTION  
OF THE CALIFORNIA TEST OF MENTAL MATURITY FOR THE HIGH ACHIEV-  
ING AND LOW ACHIEVING PUPILS

Scores	High Frequency	Low Frequency
54-56	3	0
51-53	3	1
48-50	6	3
45-47	0	3
42-44	0	2
39-41	2	1
36-38	0	1
33-35	0	1
30-32	1	1
27-29	0	2

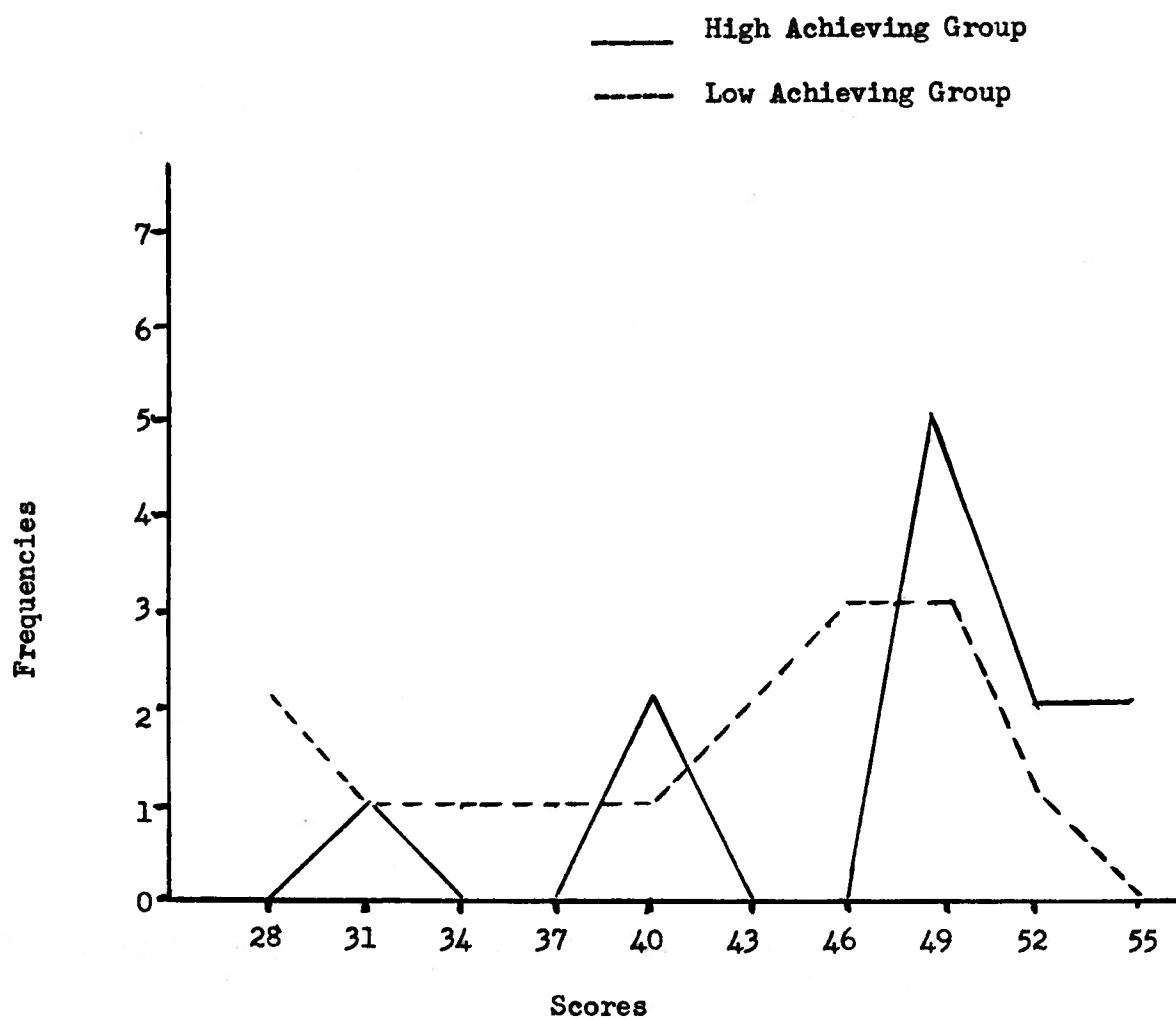


Fig. 3.- Frequency polygon of raw scores made by High Achieving and Low Achieving group on Non-Language Factor of the California Test of Mental Maturity

Results of the California Test of Personality.— Data derived from raw scores made on the different components of the California Test of Personality are presented and discussed under the following subheadings: Self-Reliance, Sense of Personal Worth, Sense of Personal Freedom, Feeling of Belonging, Withdrawing Tendencies, Nervous Symptoms, Social Standards, Social Skills, Anti-Social Tendencies, Family Relations, School Relations, Personal Adjustment, Social Adjustment and Total Adjustment.

Results of the California Test of Personality (Self-Reliance).— Table 11, indicates statistical data derived from raw scores made on Self-Reliance Component by the high achieving group and the low achieving group. A mean score of 8.90 for the high achieving group and 8.00 for the low achieving group reveal a difference in means of .90. The "t" ratio derived from the difference in means is statistically insignificant.

TABLE 11

STATISTICAL DATA DERIVED FROM RAW SCORES MADE ON SELF-RELIANCE COMPONENT OF THE CALIFORNIA TEST OF PERSONALITY FOR THE LOW ACHIEVING AND HIGH ACHIEVING GROUP

Group	Mean	S.D.	S.E.	$M_1 - M_2$	"t"
High Achieving	8.80	1.97	.53	.90	1.13 **
Low Achieving	8.00	2.30	.62		

\*\*

Insignificant difference

Table 12, gives a distribution of raw scores made by both groups. A graphic presentation is made in Figure 4, indicating overlapping throughout



the interval of scores.

TABLE 12

FREQUENCY DISTRIBUTION OF RAW SCORES MADE ON SELF-RELIANCE  
COMPONENT OF PERSONAL ADJUSTMENT FOR HIGH AND LOW  
ACHIEVING PUPILS

Scores	Low Frequency	High Frequency
12	2	0
11	1	2
10	0	6
9	3	3
8	3	1
7	1	1
6	2	1
5	3	0
4	0	1
3	0	0
2	0	0
1	0	0
0	0	0

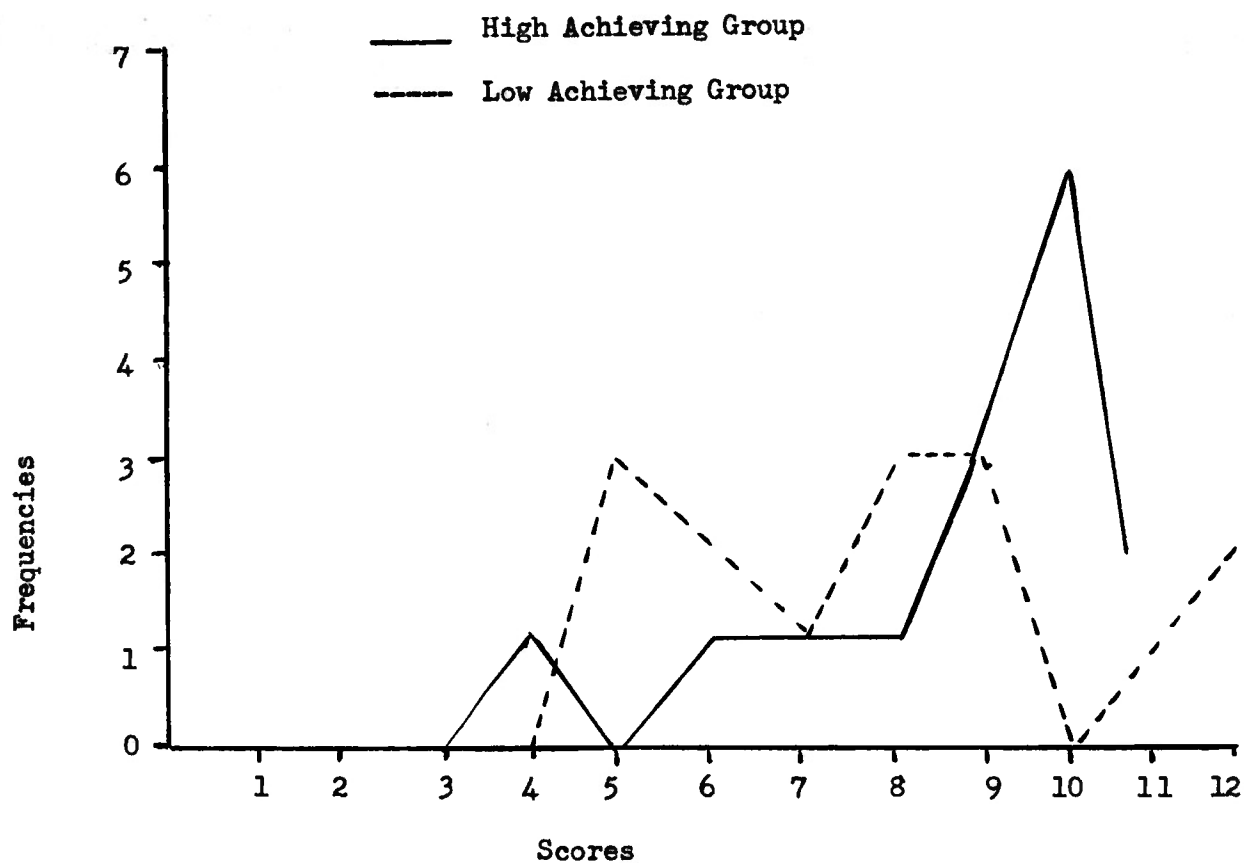


Fig. 4.- Frequency polygon of raw scores made by High Achieving and Low Achieving pupils on Self-Reliance Component of Personal Adjustment Section of the California Test of Personality

Results of the California Test of Personality (Sense of Personal Worth).— A presentation of statistical data derived from raw scores made by high achieving and low achieving pupils on Sense of Personal Worth Component is made in Table 13. The mean score made by the high achieving group is 1.80 points greater than the mean score made by the low achieving group. This difference in means reveals a "t" ratio of 1.88 which is insignificant.

TABLE 13

STATISTICAL DATA DERIVED FROM RAW SCORES MADE ON SENSE OF PERSONAL WORTH COMPONENT OF THE CALIFORNIA TEST OF PERSONALITY BY HIGH ACHIEVING AND LOW ACHIEVING PUPILS

Group	Mean	S.D.	S.E.	$M_1 - M_2$	"t"
High Achieving	9.90	2.70	.72	1.80	1.88**
Low Achieving	8.10	2.39	.64		

\*\*

Insignificant difference

A frequency distribution of raw scores made by both groups on Sense of Personal Worth Component is presented in Table 14, with a graphic presentation in Figure 5. Between the interval 3-5, there were no scores made by the high achieving pupils. Three low achieving pupils scored within this interval. All other intervals indicate overlapping of scores made by both groups.

TABLE 14  
FREQUENCY DISTRIBUTION OF RAW SCORES MADE ON SENSE OF  
PERSONAL WORTH COMPONENT OF PERSONAL ADJUSTMENT  
FOR HIGH AND LOW PUPILS

Scores	High Frequency	Low Frequency
12	5	1
11	4	1
10	2	2
9	1	0
8	1	3
7	0	2
6	1	3
5	0	1
4	0	0
3	0	2
2	1	0
1	0	0
0	0	0

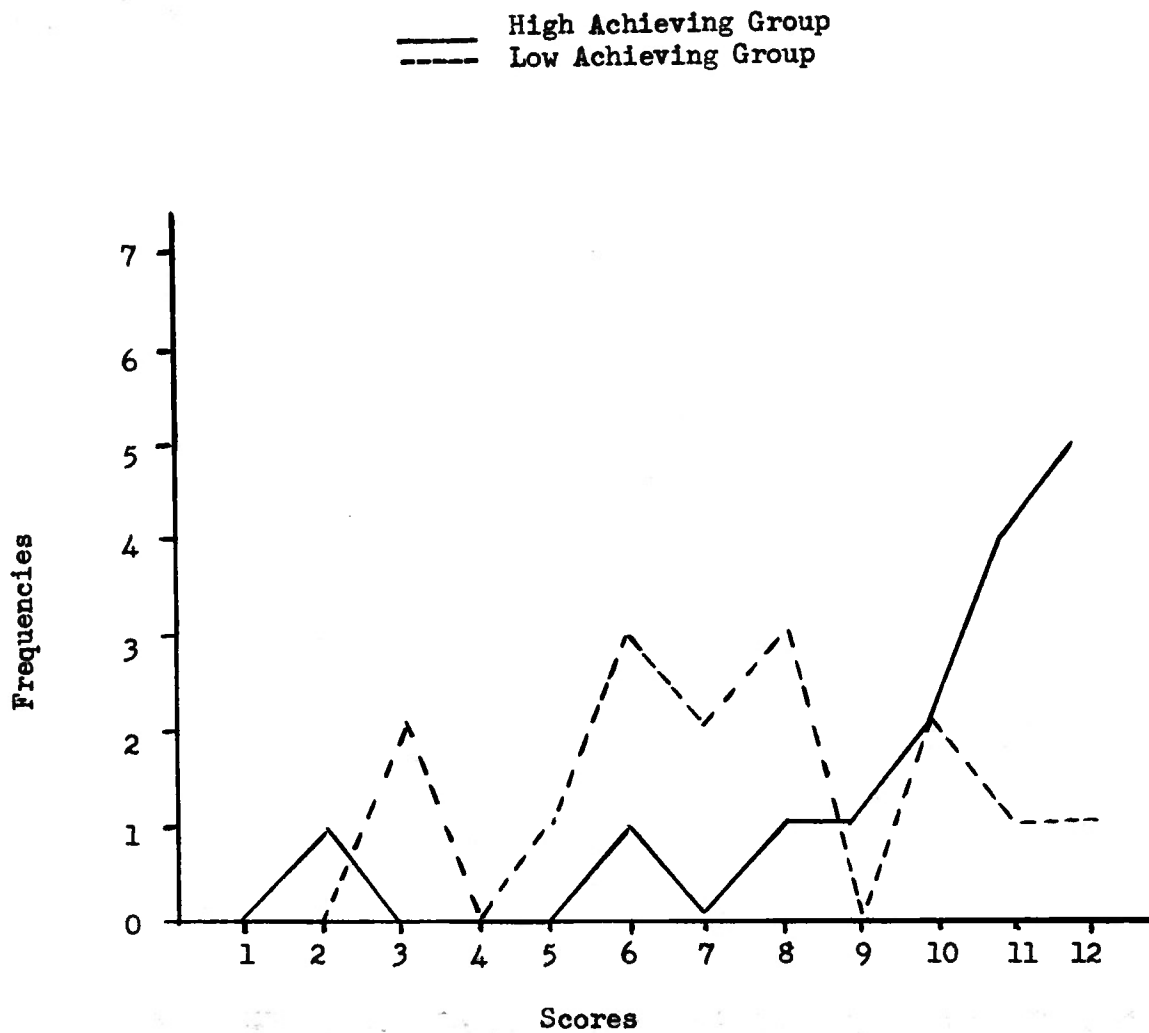


Fig. 5.- Frequency polygon plotted from raw scores made on Sense of Personal Worth Component of Personal Adjustment Section of the California Test of Personality for High Achieving and Low Achieving pupils

Results of the California Test of Personality (Sense of Personal Freedom).— Data derived from raw scores made by high achieving group and low achieving group on Sense of Personal Freedom Component are presented in Table 15. The mean score for the high achieving group is 1.07 points greater than the mean score made by the low achieving group. However, the "t" ratio reveals an insignificant difference between the high achieving group and the low achieving group on "Sense of Personal Freedom" Component.

TABLE 15

STATISTICAL DATA DERIVED FROM RAW SCORES MADE ON SENSE OF PERSONAL FREEDOM COMPONENT OF THE CALIFORNIA TEST OF PERSONALITY FOR THE HIGH ACHIEVING AND LOW ACHIEVING GROUP

Group	Mean	S.D.	S.E.	M <sub>1</sub> -M <sub>2</sub>	"t"
High Achieving	9.40	1.66	.40	1.07	1.45**
Low Achieving	8.33	2.22	.59		

\*\*

Insignificant difference

The frequency distribution presented in Table 16, and the graphic presentation of the distribution of raw scores in Figure 6, indicate that between the interval 0-5, there were two pupils in the low achieving group scoring within the interval. There were no pupils in the high achieving group falling within this interval, however, overlapping of scores was manifested above the interval, 0-5.

TABLE 16

FREQUENCY DISTRIBUTION OF RAW SCORES MADE ON SENSE OF  
PERSONAL FREEDOM COMPONENT OF PERSONAL ADJUSTMENT

Scores	High Frequency	Low Frequency
12	1	1
11	7	2
10	3	2
9	0	2
8	2	2
7	0	3
6	1	1
5	0	2
4	0	0
3	0	0
2	0	0
1	0	0
0	1	0

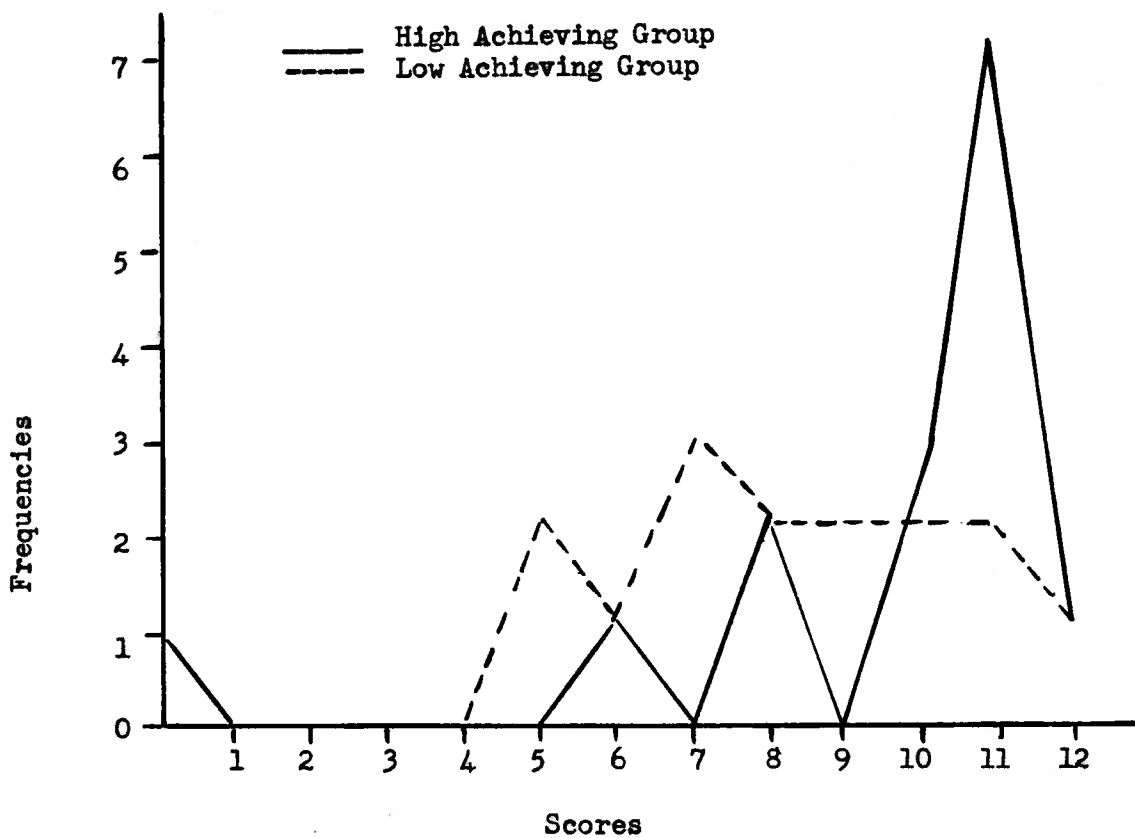


Fig. 6.- Frequency polygon plotted from raw scores made on Sense of Personal Freedom Component of the Personal Adjustment Component of the California Test of Personality for High Achieving and Low Achieving group



Results of the California Test of Personality (Feeling of Belonging).--

The data obtained from the scores made by the high achieving and low achieving group are presented in Table 17. The mean score made by the high achieving group is 1.40 points greater than the mean score made by the low achieving group. The difference in means is insignificant between the two groups.

TABLE 17

STATISTICAL DATA DERIVED FROM RAW SCORES MADE ON FEELING OF BELONGING  
COMPONENT OF THE CALIFORNIA TEST OF PERSONALITY FOR THE HIGH  
ACHIEVING GROUP AND THE LOW ACHIEVING GROUP

Group	Mean	S.E.	S.E.	$M_1 - M_2$	"t"
High Achieving	10.50	2.13	.57	1.40	1.80 **
Low Achieving	9.10	1.99	.53		

\*\*

Insignificant difference

From the frequency distribution presented in Table 18, and the graphic presentation of raw scores for both groups in Figure 7, indicate overlapping of scores between the interval 6-12. However, there was only one high achieving pupil and no low achieving pupils scoring below this interval.

TABLE 18

FREQUENCY DISTRIBUTION OF RAW SCORES MADE ON FEELING  
OF BELONGING COMPONENT OF PERSONAL ADJUSTMENT

Scores	High Frequency	Low Frequency
12	0	2
11	5	2
10	7	4
9	1	2
8	0	0
7	0	3
6	1	2
5	0	0
4	0	0
3	1	0
2	0	0
1	0	0
0	0	0

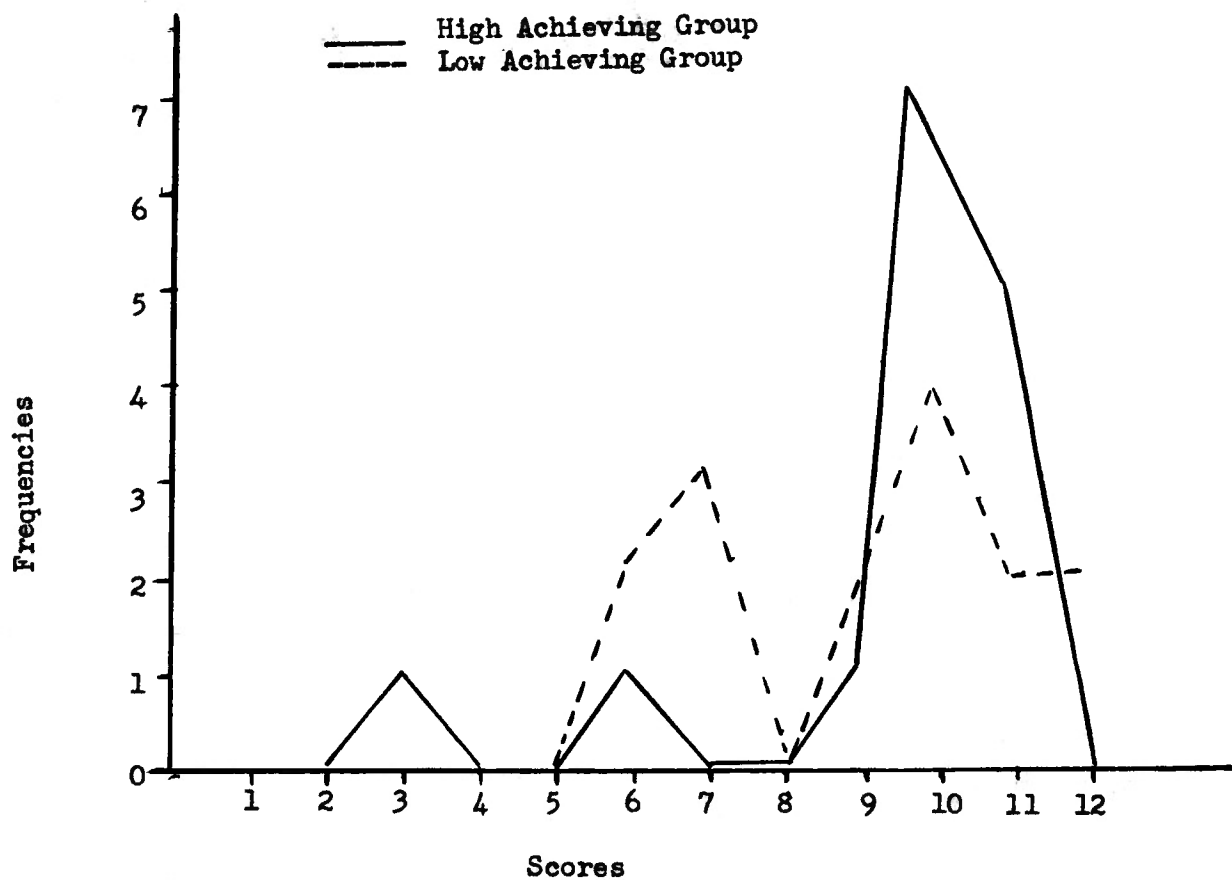


Fig. 7.- Frequency polygon plotted from raw scores made on Feeling of Belonging Component of Personal Adjustment for the High Achieving and Low Achieving Group

Results of the California Test of Personality (Withdrawing Tendencies).--

Data derived from raw scores made by the high achieving group are presented in Table 19. The mean score for the high achieving group and the mean for the low achieving group, as indicated in the table, show a difference of .47, with an obtained "t" of .41. The "t" test reveals an insignificant difference between the high achieving group and the low achieving group on "Withdrawing Tendencies" Component.

TABLE 19

STATISTICAL DATA DERIVED FROM RAW SCORES MADE ON WITHDRAWING TENDENCIES COMPONENT OF THE CALIFORNIA TEST OF PERSONALITY FOR THE HIGH ACHIEVING GROUP AND THE LOW ACHIEVING GROUP

Group	Mean	S.D.	S.E.	$M_1 - M_2$	"t"
High Achieving	8.67	2.62	.70	.47	.41**
Low Achieving	8.20	3.25	.87		

\*\*

Insignificant difference

Table 20, presents a frequency distribution of raw scores made by high achieving group and low achieving group on "Withdrawing Tendencies" Component. Figure 8, gives graphically the distribution of raw scores made by both groups. It reveals that overlapping is manifested throughout the polygon.

TABLE 20

FREQUENCY DISTRIBUTION OF RAW SCORES MADE ON WITHDRAWING TENDENCIES  
COMPONENT OF PERSONAL ADJUSTMENT FOR THE HIGH ACHIEVING AND  
LOW ACHIEVING GROUP

Scores	High Frequency	Low Frequency
12	1	3
11	4	2
10	3	2
9	1	1
8	1	1
7	2	1
6	0	2
5	2	1
4	0	0
3	1	0
2	0	2
1	0	0
0	0	0

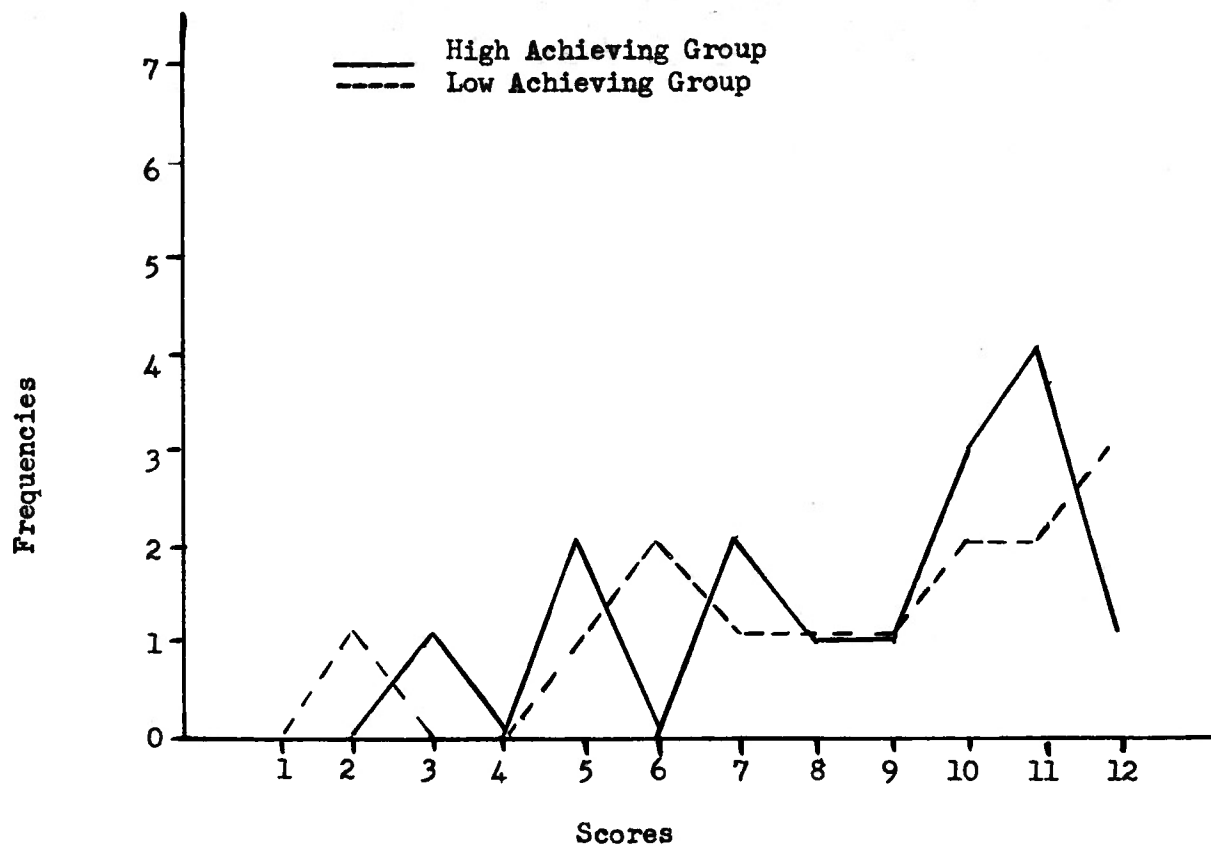


Fig. 8.- Frequency polygon plotted from raw scores made by High Achieving and Low Achieving pupils on (Withdrawing Tendencies) on the California Test of Personality

Results of the California Test of Personality (Nervous Symptoms).--

Data derived from raw scores made on Nervous Symptoms Component by the high achieving group and the low achieving group are presented in Table 21.

As indicated in the table, the mean score made by the high achieving group is .60 less than the mean score made by the low achieving group. The "t" test reveals an insignificant difference between the two groups in "Nervous Symptoms" Component.

TABLE 21

STATISTICAL DATA DERIVED FROM RAW SCORES MADE ON NERVOUS SYMPTOMS COMPONENT OF THE CALIFORNIA TEST OF PERSONALITY FOR THE HIGH ACHIEVING GROUP AND THE LOW ACHIEVING GROUP

Group	Mean	S.D.	S.E.	$M_1 - M_2$	"t"
High Achieving	8.20	3.31	.89	.60	.56**
Low Achieving	8.80	2.31	.62		

\*\*

Insignificant difference

Table 22, presents a frequency distribution for the raw scores made by both groups. Figure 9, gives graphically the distribution of raw scores and describes the overlapping of scores made by both groups. Within the interval, 0-5, there were four high achieving pupils and no low achieving pupils within this range. Above the interval, overlapping was revealed from the raw scores made by both groups.

TABLE 22

FREQUENCY DISTRIBUTION OF RAW SCORES MADE ON NERVOUS SYMPTOMS  
COMPONENT OF PERSONAL ADJUSTMENT FOR HIGH AND LOW  
ACHIEVING GROUP ON CALIFORNIA PERSONALITY TEST

Scores	High Frequency	Low Frequency
12	1	3
11	4	1
10	3	2
9	1	3
8	1	1
7	1	0
6	0	5
5	1	0
4	1	0
3	1	0
2	0	0
1	1	0
0	0	0



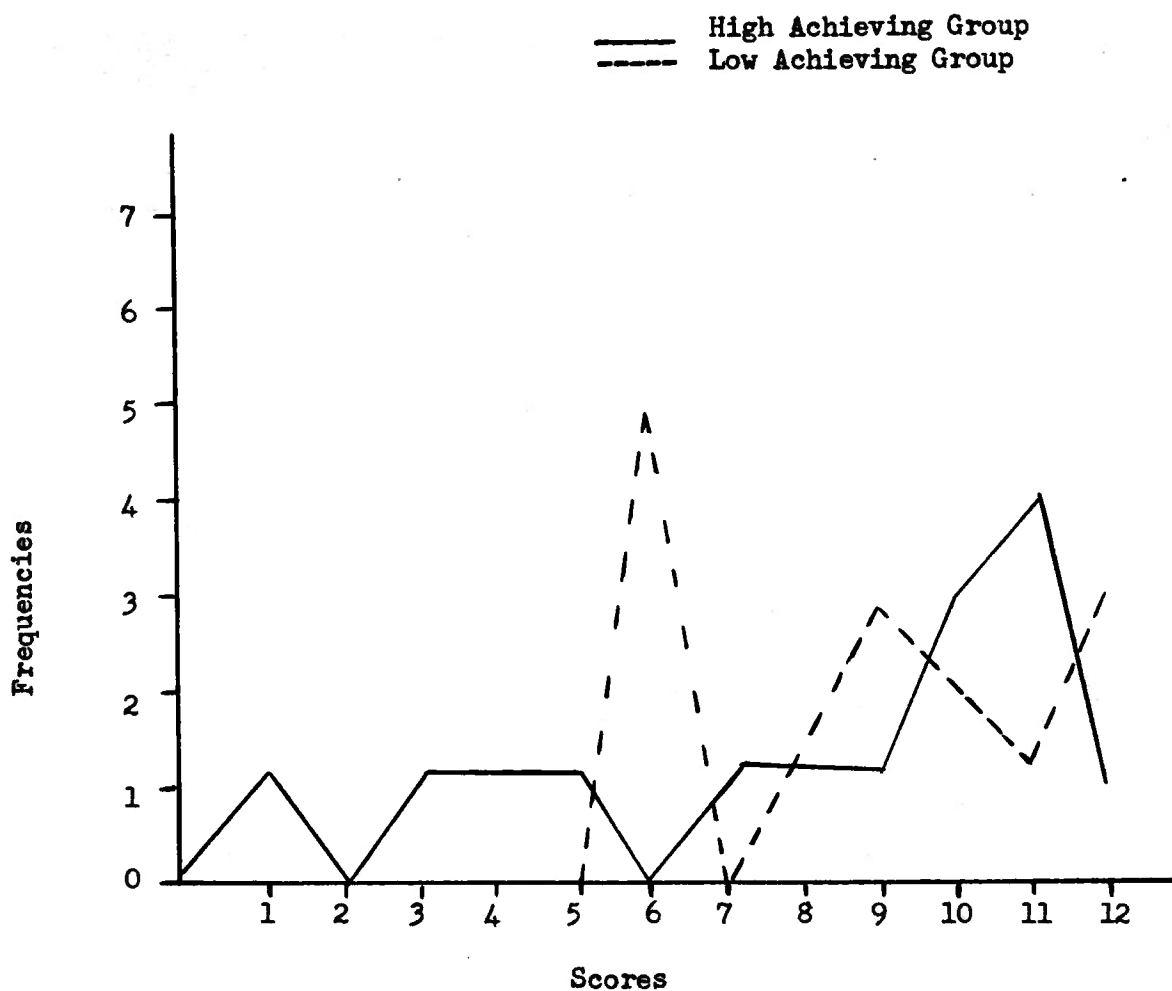


Fig. 9.- Frequency polygon plotted from raw scores made on (Nervous Symptoms Component) of the California Test of Personality for High Achieving and Low Achieving pupils

Results of the California Test of Personality (Social Standards Component).-- Statistical data derived from raw scores made by fifteen high achieving pupils and fifteen low achieving pupils are presented in Table 23. The mean score made by the low achieving group is 4.16 points greater than the mean score made by the low achieving group. The "t" ratio of 8.00 indicates a significant difference between the high achieving group and the low achieving group on Social Standards Component in favor of the high achieving group.

TABLE 23

STATISTICAL DATA DERIVED FROM SCORES MADE ON SOCIAL STANDARDS COMPONENT OF THE CALIFORNIA TEST OF PERSONALITY FOR THE HIGH ACHIEVING GROUP AND THE LOW ACHIEVING GROUP

Group	Mean	S.D.	S.E.	$M_1 - M_2$	"t"
High Achieving	11.06	1.66	.32	4.16	8.00*
Low Achieving	7.90	1.74	.42		

\*

Significant difference

Table 24, indicates a frequency distribution of the raw scores made by both groups. Figure 10, gives graphically a distribution of the raw scores. As revealed in the polygon, there is slight overlapping of scores between the interval, 8-10. Below this interval, the remaining low achieving pupils scored. There were three high achieving pupils and ten low achieving pupils scoring within the interval, 8-10.

TABLE 24

FREQUENCY DISTRIBUTION OF RAW SCORES MADE ON SOCIAL STANDARDS  
 COMPONENT OF SOCIAL ADJUSTMENT SECTION FOR THE HIGH AND  
 LOW ACHIEVING GROUP ON THE CALIFORNIA TEST OF PER-  
 SONALITY

Scores	High Frequency	Low Frequency
12	7	0
11	5	0
10	1	2
9	1	5
8	1	3
7	0	2
6	0	1
5	0	2
4	0	0
3	0	0
2	0	0
1	0	0
0	0	0

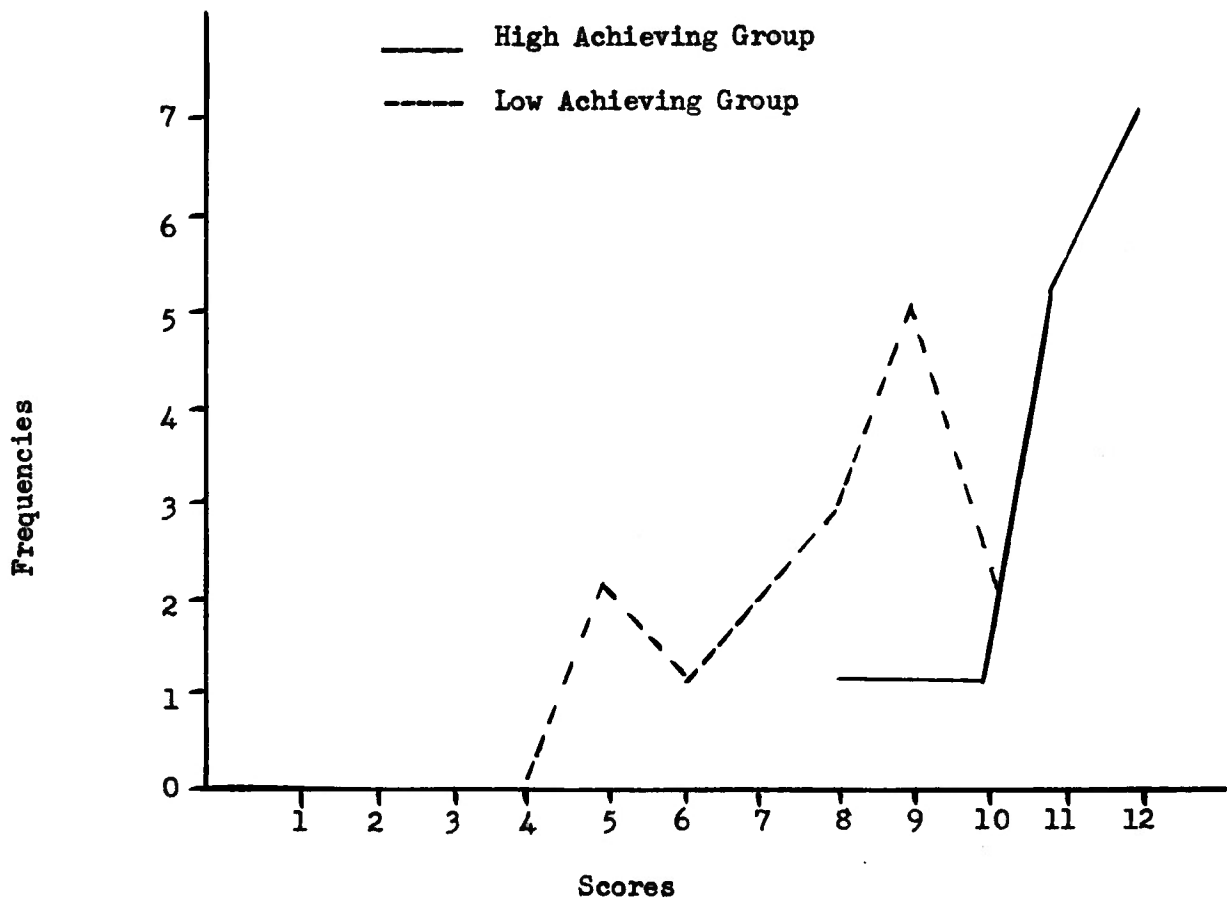


Fig. 10.- Frequency Polygon plotted from raw scores made on (Social Standards) of the California Test of Personality by the High Achieving and Low Achieving group

Results of the California Test of Personality (Social Skills).--- Data derived from the raw scores made by the high achieving group and the low achieving group on "Social Skills" are presented in Table 25. As revealed in the table, the mean score made by the high achieving group is 9.33 and the mean score for the low achieving group is 8.67. The difference between the two means is .60 which reveals a "t" ratio of 1.03. The difference between the two groups in "Social Skills" is statistically insignificant.

TABLE 25

STATISTICAL DATA DERIVED FROM RAW SCORES MADE ON SOCIAL SKILLS COMPONENT OF THE CALIFORNIA TEST OF PERSONALITY BY THE HIGH ACHIEVING GROUP AND THE LOW ACHIEVING GROUP

Group	Mean	S.D.	S.E.	$M_1 - M_2$	"t"
High Achieving	9.33	1.66	.44	.66	1.03**
Low Achieving	8.67	1.74	.47		

\*\*

Insignificant difference

Table 26, gives a frequency distribution of raw scores made by both groups. Figure 11, indicates graphically the distribution of raw scores and indicates the extent of overlapping from raw scores made by the two groups. Overlapping is manifested throughout the range of scores.

TABLE 26

FREQUENCY DISTRIBUTION OF RAW SCORES MADE ON SOCIAL SKILLS  
COMPONENT OF SOCIAL ADJUSTMENT SECTION FOR HIGH AND  
LOW ACHIEVING GROUP ON THE CALIFORNIA  
TEST OF PERSONALITY

Scores	High Frequency	Low Frequency
12	2	1
11	2	1
10	2	3
9	5	3
8	2	4
7	1	0
6	1	3
5	0	0
4	0	0
3	0	0
2	0	0
1	0	0
0	0	0

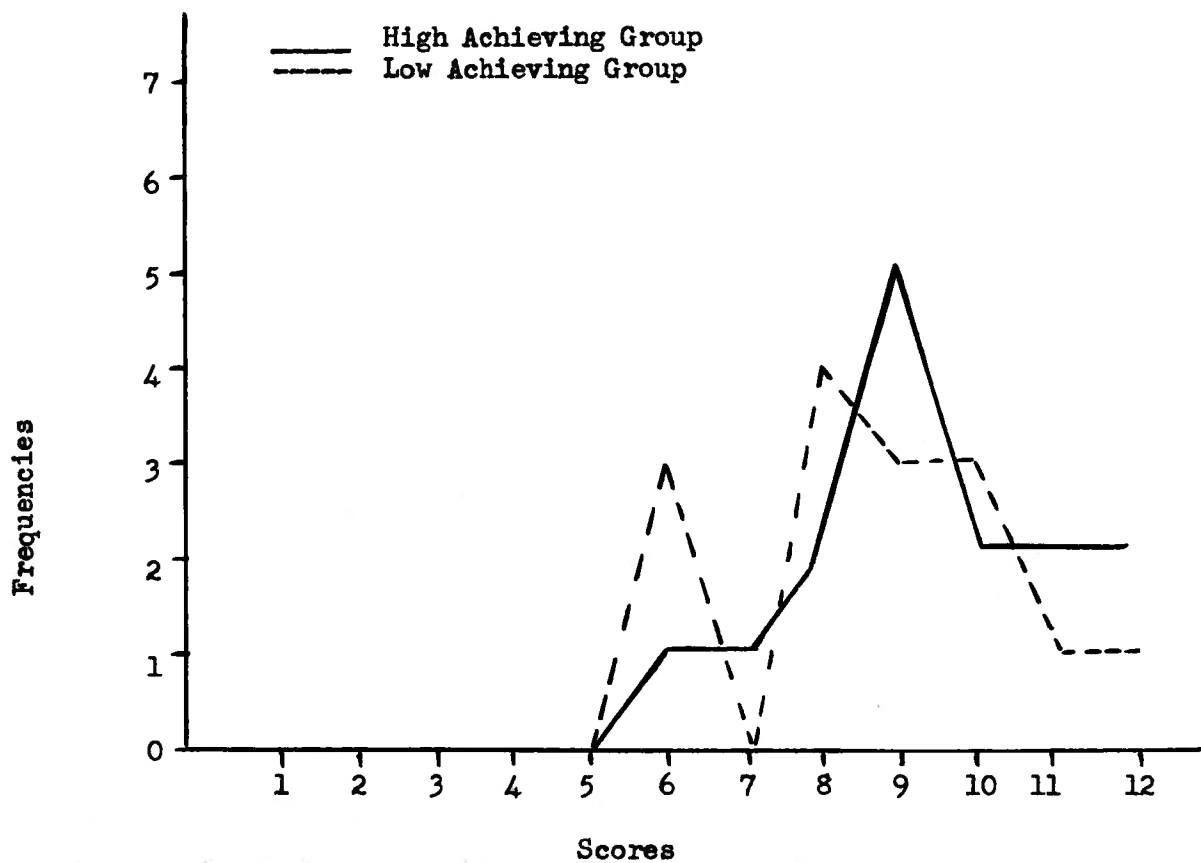


Fig. 11.- Frequency polygon of raw scores made on (Social Skills) of the California Test of Personality by High Achieving and Low Achieving Group

Results of the California Test of Personality (Anti-Social Tendencies).

— Data derived from raw scores made on "Anti-Social Tendencies" Component by the high achieving group and the low achieving group are presented in Table 27. As indicated in the table, the mean score for the high achieving group is 2.20 points greater than the mean score for the low achieving group. This difference in means, as revealed by "t", is significant.

TABLE 27

STATISTICAL DATA DERIVED FROM RAW SCORES MADE ON ANTI-SOCIAL TENDENCIES COMPONENT OF THE CALIFORNIA TEST OF PERSONALITY FOR THE LOW ACHIEVING AND HIGH ACHIEVING GROUP

Group	Mean	S.D.	S.E.	$M_1 - M_2$	"t"
High Achieving	8.87	2.33	.62	2.20	2.16*
Low Achieving	6.67	2.99	.80		

\*

Significant difference

Table 28, shows a frequency distribution of raw scores made by both groups. Figure 12, gives a graphic presentation of the raw scores for both groups. Overlapping of scores made by both groups is revealed within the interval 5-12. All high achieving pupils scored within this interval, while six low achieving pupils scored below the interval.



TABLE 28  
 FREQUENCY DISTRIBUTION OF RAW SCORES MADE ON ANTI-SOCIAL TENDEN-  
 CIES OF SOCIAL ADJUSTMENT COMPONENT FOR HIGH ACHIEVING AND  
 LOW ACHIEVING GROUP ON THE CALIFORNIA TEST  
 OF PERSONALITY

Scores	High Frequency	Low Frequency
12	3	1
11	1	2
10	3	2
9	1	0
8	3	1
7	1	1
6	1	2
5	2	1
4	0	2
3	0	2
2	0	0
1	0	0
0	0	1

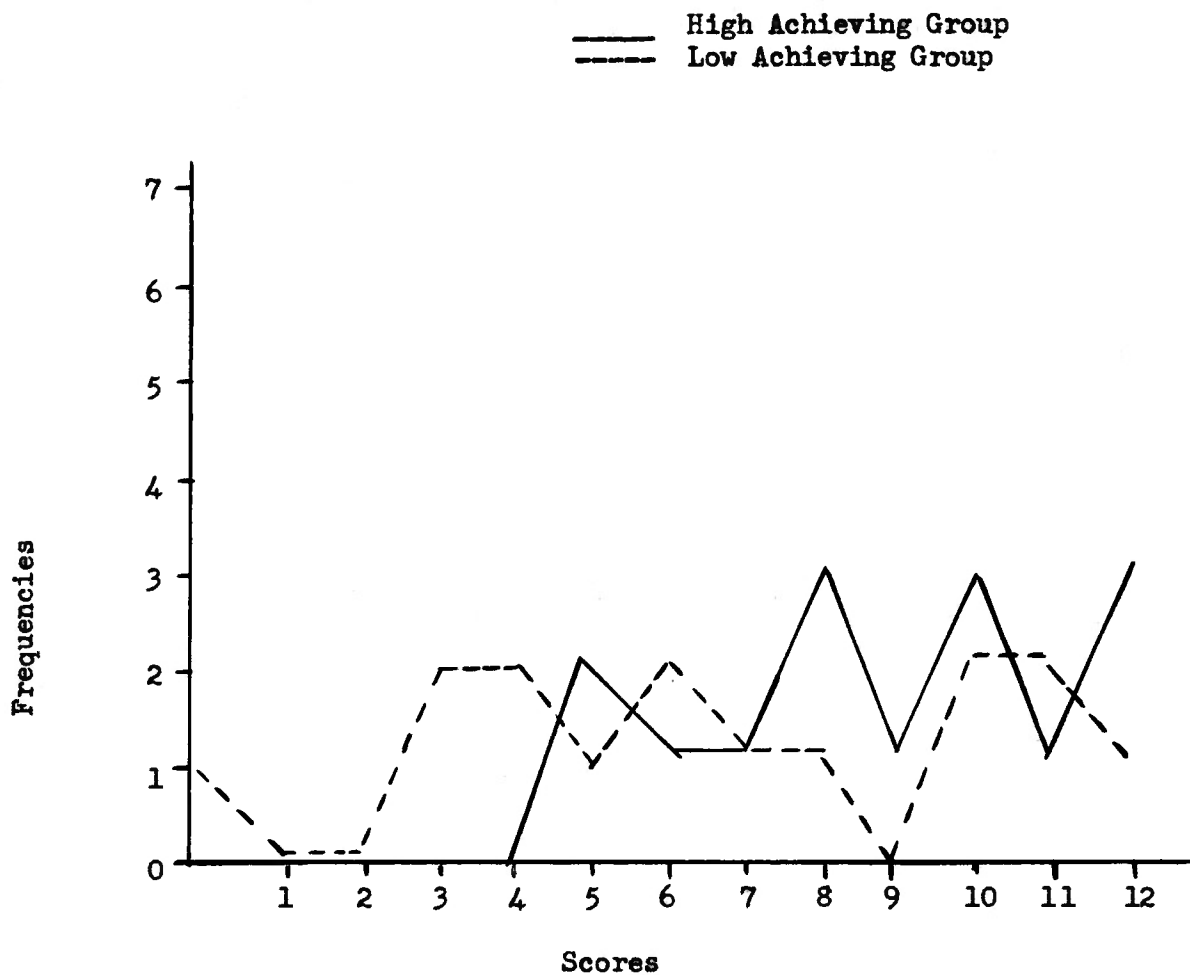


Fig. 12.- Frequency polygon of raw scores made on (Anti-Social Tendencies) of the California Test of Personality for High Achieving and Low Achieving Group

Results of the California Test of Personality (Family Relations).--

Data derived from raw scores made on "Family Relations" Component of the California Test of Personality are presented in Table 29, for the high achieving group and the low achieving group. As indicated in the table, the mean score made by the high achieving group is 2.50 points greater than the mean score for the low achieving group. This difference in means, as revealed by the "t", is significant in favor of the high achieving group.

TABLE 29

STATISTICAL DATA DERIVED FROM RAW SCORES MADE ON FAMILY RELATIONS  
COMPONENT OF THE CALIFORNIA TEST OF PERSONALITY FOR THE  
HIGH ACHIEVING AND LOW ACHIEVING GROUP

Group	Mean	S.D.	S.E.	$M_1 - M_2$	"t"
High Achieving	10.10	1.70	.46	2.50	3.01*
Low Achieving	7.60	2.87	.77		

\*

Significant difference

A frequency distribution of raw scores made by both groups is presented in Table 30. Figure 13, gives graphically the distribution of raw scores made by the two groups. Overlapping of scores was manifested between the interval 6-12, as indicated by the polygon. Within the interval 0-6, there were six low achieving pupils. All high achieving pupils scores were above the interval 0-6.

TABLE 30  
FREQUENCY DISTRIBUTION OF RAW SCORES MADE ON FAMILY RELATIONS  
COMPONENT OF SOCIAL ADJUSTMENT BY HIGH AND LOW ACHIEVING  
GROUP ON THE CALIFORNIA TEST OF PERSONALITY

Scores	High Frequency	Low Frequency
12	5	2
11	1	2
10	3	0
9	4	1
8	0	3
7	2	1
6	0	2
5	0	1
4	0	2
3	0	1
2	0	0
1	0	0
0	0	0

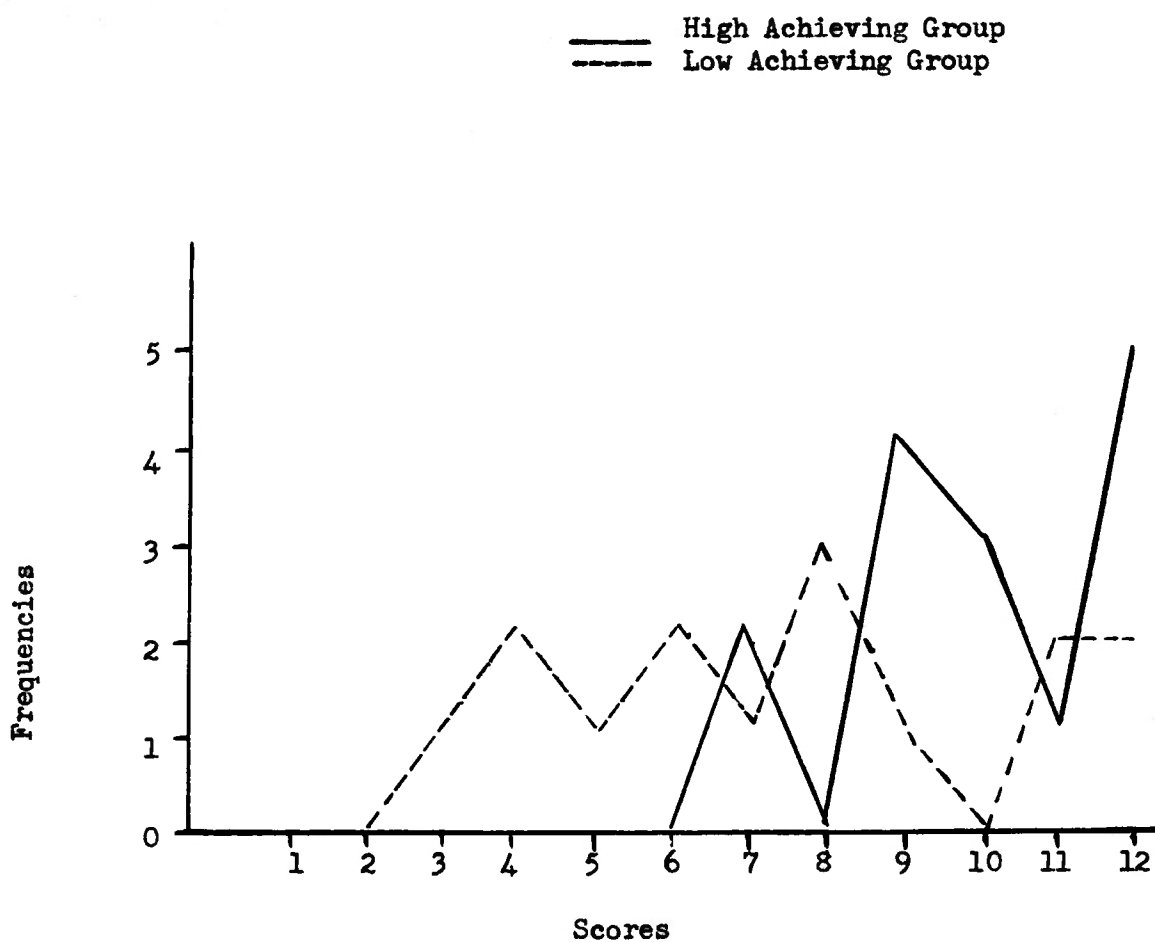


Fig. 13.- Frequency polygon of raw scores made on (Family Relations) of the California Test of Personality for High Achieving and Low Achieving Group

Results of the California Test of Personality (School Relations).--- Data derived from raw scores made on "School Relations" Component of the California Test of Personality for the high achieving group and the low achieving group are presented in Table 31. As indicated by the table, the mean score for the high achieving group is 9.20 and the mean score for the low achieving group is 8.50. The difference between the two means is .70. The "t" ratio obtained from the difference in means between the two groups is statistically insignificant on School Relations Component.

TABLE 31

STATISTICAL DATA DERIVED FROM RAW SCORES MADE ON SCHOOL RELATIONS  
COMPONENT OF THE CALIFORNIA TEST OF PERSONALITY FOR THE  
HIGH ACHIEVING GROUP AND THE LOW ACHIEVING GROUP

Group	Mean	S.D.	S.E.	$M_1 - M_2$	"t"
High Achieving	9.20	2.36	.60	.70	.80**
Low Achieving	8.50	2.28			

\*\*

Insignificant difference

As revealed by Table 32, and Figure 14, overlapping of raw scores made by both groups on School Relations Component was manifested throughout the distribution.

TABLE 32  
FREQUENCY DISTRIBUTION OF SCORES MADE ON SCHOOL RELATIONS FOR  
HIGH AND LOW ACHIEVING GROUP ON SOCIAL ADJUSTMENT SECTION  
OF THE CALIFORNIA TEST OF PERSONALITY

Scores	High Frequency	Low Frequency
12	2	3
11	3	0
10	3	2
9	3	2
8	1	2
7	0	4
6	1	1
5	1	0
4	1	1
3	0	0
2	0	0
1	0	0
0	0	0

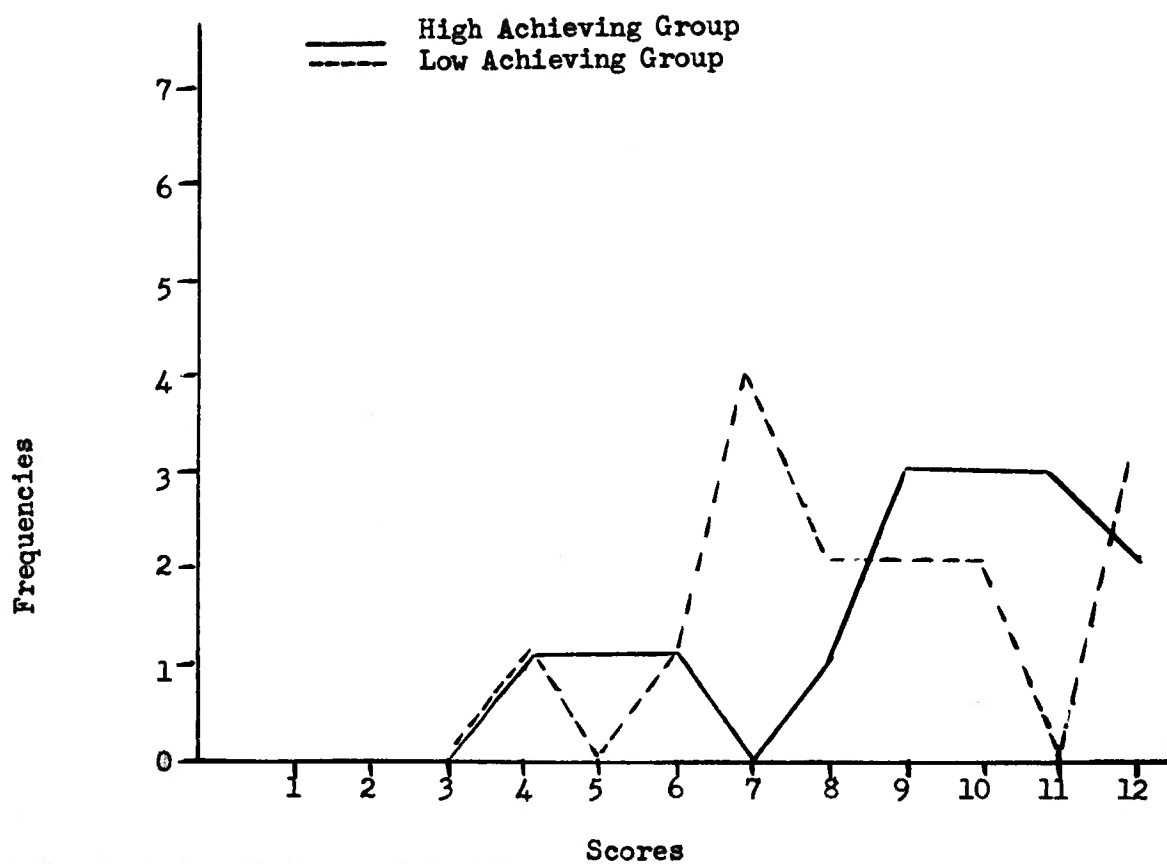


Fig. 14.- Frequency polygon plotted from raw scores made on (School Relations) on the California Test of Personality for High Achieving and Low Achieving Group



Results of the California Test of Personality (Community Relations).--

Data obtained from raw scores made by high achieving group and low achieving group on "Community Relations" are presented in Table 33. The table shows that the mean score for the high achieving group is 1.90 points greater than the mean for the low achieving group. The obtained "t" indicates a statistically significant difference between the two groups on Community Relations Component.

TABLE 33

STATISTICAL DATA DERIVED FROM RAW SCORES MADE ON COMMUNITY RELATIONS COMPONENT OF THE CALIFORNIA TEST OF PERSONALITY FOR THE HIGH ACHIEVING GROUP AND LOW ACHIEVING GROUP

Group	Mean	S.D.	S.E.	$M_1 - M_2$	"t"
High Achieving	10.10	.95	.25	1.90	3.02*
Low Achieving	8.20	2.15	.58		

\*

Significant difference

Table 34, gives a frequency distribution of raw scores made on Community Relations Component by the high achieving and low achieving group. Figure 15, gives a graphic presentation of the frequency of raw scores made by both groups. There was slight overlapping between the interval 8-11. All pupils in the high achieving group scored between the interval 8-12, while three low achieving pupils scored below this interval.

TABLE 34

FREQUENCY DISTRIBUTION OF RAW SCORES MADE ON COMMUNITY RELATIONS  
COMPONENT FOR HIGH ACHIEVING AND LOW ACHIEVING GROUP ON  
SOCIAL ADJUSTMENT SECTION OF THE CALIFORNIA  
TEST OF PERSONALITY

Scores	High Frequency	Low Frequency
12	1	0
11	4	2
10	7	3
9	2	2
8	1	5
7	0	0
6	0	0
5	0	1
4	0	2
3	0	0
2	0	0
1	0	0
0	0	0

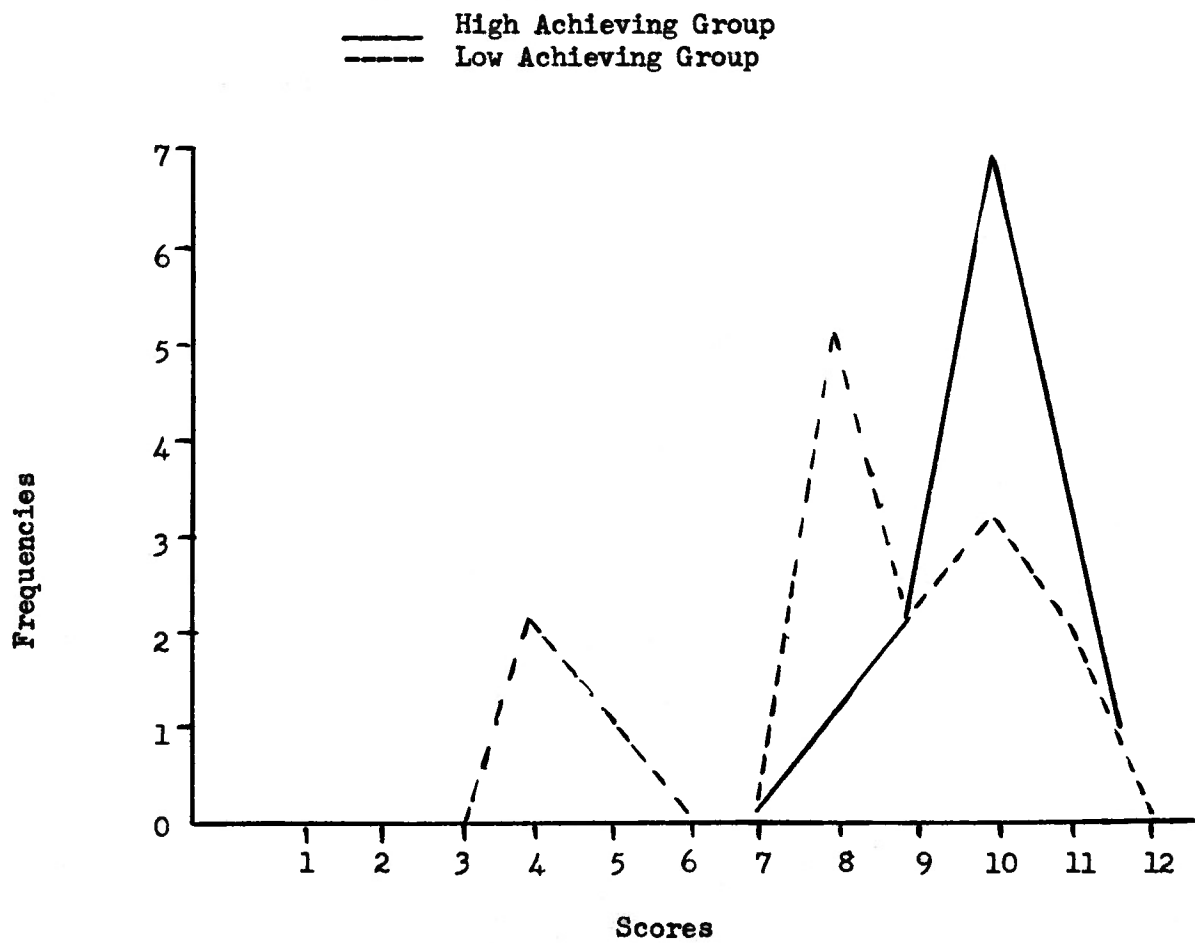


Fig. 15.- Frequency polygon plotted from raw scores made on (Community Relations) on the California Test of Personality for the High Achieving and Low Achieving Group

Results of the California Test of Personality (Comparison of Means with Percentile Ranks).— A comparison of the mean scores made by the high achieving group and the low achieving group on different components of Personal Adjustment with test norms is presented in Table 35. As indicated in the table, the high achieving group obtained percentile ranks less than 50 on Sense of Personal Freedom Component and Nervous Symptoms Components. The mean scores for the two Components reveal a percentile rank of 40, indicating that 60 per cent of the subjects used in the standardized sample scored above the group on the components: Sense of Personal Freedom and Nervous Symptoms.

In the low achieving group, a percentile rank of 30 was obtained for the Components: Sense of Personal Freedom and Feeling of Belonging when compared to the norms for the test. This implies that the low achieving group scored lower than 70 per cent of the subjects used for the standardization of the test on the Components: Sense of Personal Freedom and Feeling of Belonging.

The highest percentile rank reported for the high achieving group is 80, made on Sense of Personal Worth Component. A percentile rank of 60 is the highest reported for the low achieving group on the Components: Self-Reliance and Withdrawing Tendencies.

A comparison of the mean scores made by the high achieving group and low achieving group with the percentile ranks for test norms on different components of Social Adjustment is presented in Table 36.

The high achieving group received percentile ranks of less than 50 on two components, namely: Family Relations and Community Relations. Mean scores made by the group were equivalent to a percentile rank of 40, indicating that 60 per cent of the subjects used in the standardization of the

test scored above the group.

TABLE 35

COMPARATIVE DATA OF MEAN RAW SCORES MADE BY HIGH ACHIEVING AND LOW ACHIEVING GROUP WITH PERCENTILE RANKS FROM TEST NORMS ON DIFFERENT COMPONENTS OF PERSONAL ADJUSTMENT

COMPONENTS	HIGH ACHIEVING		LOW ACHIEVING	
	Mean Score	Percentile	Mean Score	Percentile
Self-Reliance	8.90	70	8.00	60
Sense of Personal Worth	9.90	80	8.10	50
Sense of Personal Freedom	9.40	40	8.33	30
Feeling of Belonging	10.50	55	9.10	30
Withdrawing Tendencies	8.67	70	8.20	60
Nervous Symptoms	8.20	40	8.80	50

TABLE 36

COMPARATIVE DATA ON MEAN SCORES MADE BY HIGH ACHIEVING GROUP AND LOW ACHIEVING GROUP WITH PERCENTILE RANKS FROM TEST NORMS FOR DIFFERENT COMPONENTS ON SOCIAL ADJUSTMENT SECTION

COMPONENTS	HIGH ACHIEVING		LOW ACHIEVING	
	Mean Score	Percentile Rank	Mean Score	Percentile Rank
Social Standards	11.06	60	7.90	10
Social Skills	9.33	50	8.67	50
Anti-Social Tendencies	8.87	70	6.67	10
Family Relations	10.10	40	7.60	20
School Relations	9.20	50	8.50	45
Community Relations	10.10	40	8.20	10

The low achieving group obtained a percentile rank of 50 in Social Skills, the highest rank received on any of the components in the Social Adjustment section by the group. The lowest percentile ranks were made on Social Standards, Anti-Social Tendencies, and Community Relations.

A percentile rank of 70, made on Anti-Social Tendencies, was the highest obtained by the high achieving group. The low achieving group revealed a percentile rank of 50, the highest reported, on Social Skills Component.

Results of the California Test of Personality (Personal Adjustment).--

Statistical data derived from raw scores made by the high achieving group and the low achieving group on Personal Adjustment Component of the California Test of Personality are presented in Table 37. As indicated by the table, the high achieving group made a mean score 5.80 points greater than the mean score made by the low achieving group. This difference between means reveals a "t" ratio of 1.32 which is insignificant.

TABLE 37

STATISTICAL DATA DERIVED FROM RAW SCORES MADE ON PERSONAL ADJUSTMENT COMPONENT OF THE CALIFORNIA TEST OF PERSONALITY FOR THE HIGH ACHIEVING AND LOW ACHIEVING GROUP

Group	Mean	Median	S.D.	S.E.	SEDm	$M_1 - M_2$	"t"
High Achieving	55.70	60.00	12.91	3.18	4.18	5.80	1.32**
Low Achieving	49.90	50.00	10.14	2.71			

\*\*

Insignificant difference

A mean score of 55.70, made by the high achieving group is equivalent to a percentile rank of 50. The low achieving group made a mean score

of 49.90, which is equivalent to a percentile rank of 40, when compared to the test norms.

As indicated in Table 38, and presented graphically in Figure 16, there was overlapping of scores made by both groups within the interval 39-68.

TABLE 38

FREQUENCY DISTRIBUTION OF RAW SCORES MADE ON PERSONAL ADJUSTMENT COMPONENT OF THE CALIFORNIA TEST OF PERSONALITY BY HIGH ACHIEVING AND LOW ACHIEVING PUPILS

Scores	High Achieving	Low Achieving
	Frequency	Frequency
66-68	2	1
63-65	5	1
60-62	1	0
57-59	2	3
54-56	1	1
51-53	0	1
48-50	1	2
45-47	1	2
42-44	0	1
39-41	1	0
35-38	0	2
33-35	0	1
30-32	0	1
27-29	0	0
24-26	0	0
21-23	0	0
18-20	0	0
15-17	1	0

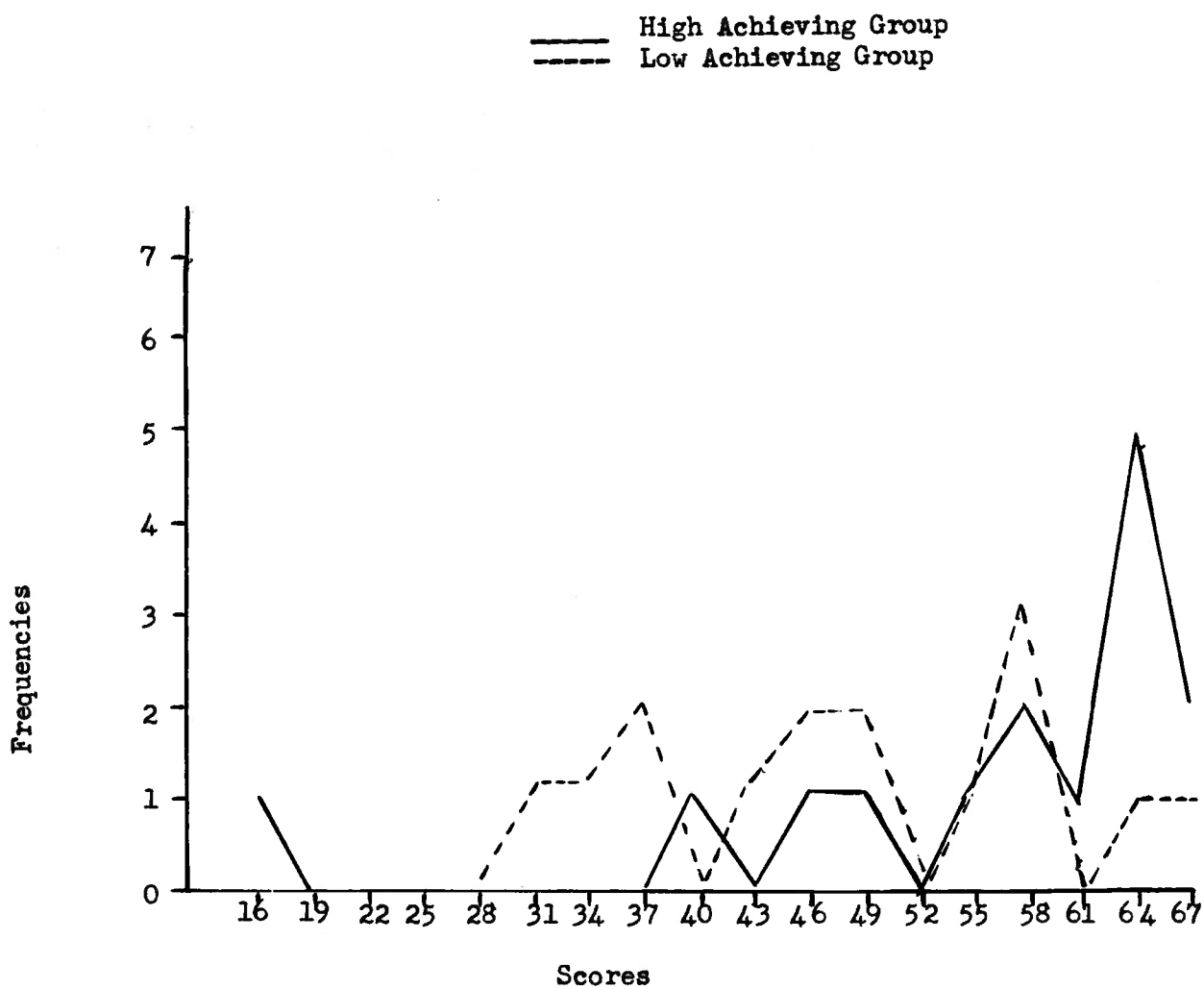


Fig. 16.- Frequency polygon plotted from raw scores made by High Achieving and Low Achieving pupils on Personal Adjustment Component of the California Test of Personality



Results of the California Test of Personality (Social Adjustment).--

Statistical data derived from raw scores made on Social Adjustment Component by high achieving group and low achieving group are presented in Table 39.

TABLE 39

STATISTICAL DATA DERIVED FROM RAW SCORES MADE ON SOCIAL ADJUSTMENT COMPONENT OF THE CALIFORNIA TEST OF PERSONALITY BY THE HIGH ACHIEVING AND LOW ACHIEVING GROUP

Group	Mean	Median	S.D.	S.E.	SEDm	$M_1 - M_2$	"t"
High Achieving	58.70	60.00	7.01	1.87	3.11	11.10	3.57*
Low Achieving	47.60	50.00	9.31	2.49			

\*

Significant difference

As revealed by the table, the mean score made by the high achieving group is 11.10 points greater than the mean score made by the low achieving group. The obtained "t" ratio indicates a significant difference between the high achieving group and the low achieving group on Social Adjustment Component.

A mean score of 58.70, made by the high achieving group corresponds to a percentile rank of 50 for the test norms. The low achieving group has a mean score of 47.60 which is equivalent to a percentile rank of 20 when compared to the norms for the test.

Table 40, and Figure 17, indicate slight overlapping of raw scores made by both groups between the interval 42-63. There were no pupils in the high achieving group scoring below this interval.

TABLE 40

FREQUENCY DISTRIBUTION OF RAW SCORES MADE ON SOCIAL  
ADJUSTMENT COMPONENT OF THE CALIFORNIA TEST OF  
PERSONALITY BY THE HIGH ACHIEVING AND LOW  
ACHIEVING GROUP

SCORES	HIGH ACHIEVING	LOW ACHIEVING
	Frequency	Frequency
69-71	1	0
66-68	2	0
63-65	2	1
60-62	4	1
57-59	0	2
54-56	2	1
51-53	0	0
48-50	3	1
45-47	0	1
42-44	1	4
39-41	0	2
36-38	0	1
33-35	0	0
30-32	0	0
27-29	0	1

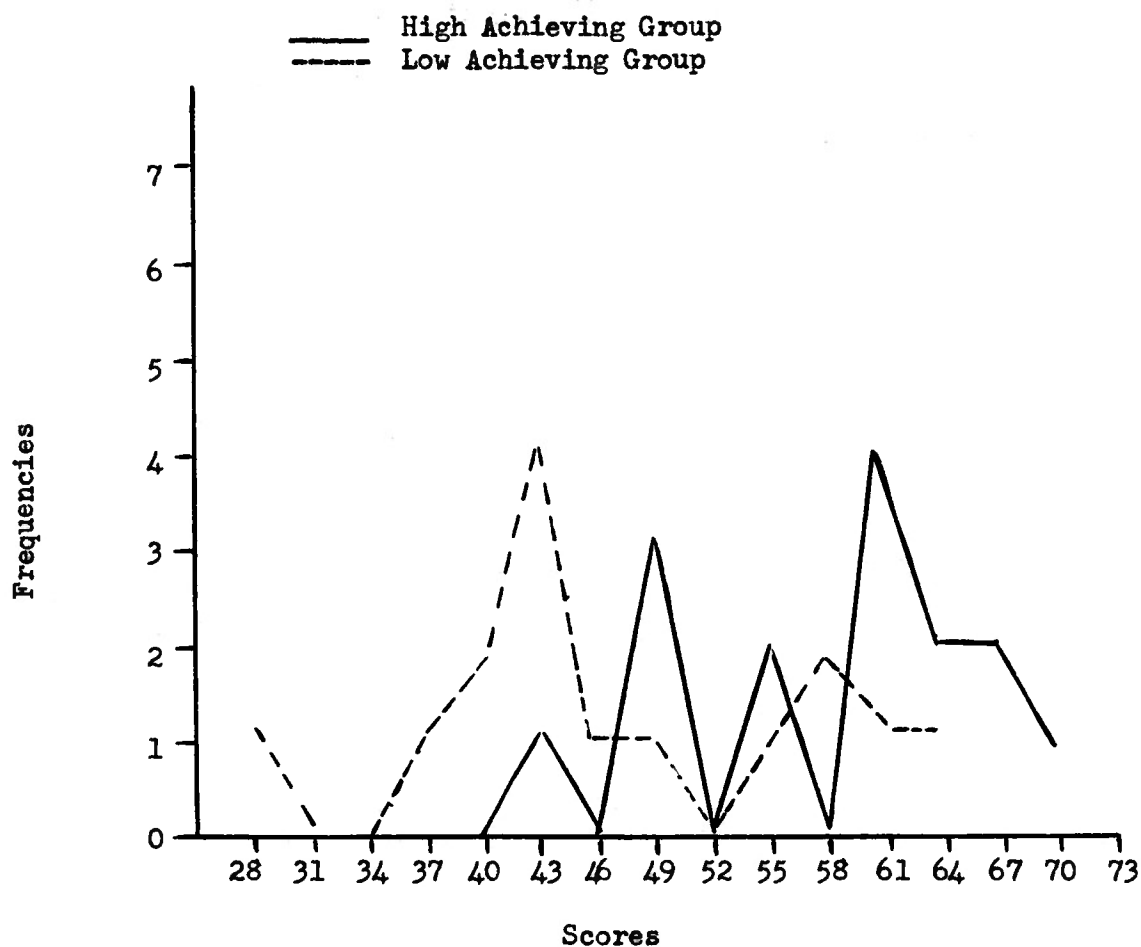


Fig. 17.- Frequency polygon plotted from raw scores made by High Achieving and Low Achieving Group on Social Adjustment component of the California Test of Personality

Results of the California Test of Personality (Total Adjustment).--- Data derived from raw scores made by high achieving group and low achieving group on Total Adjustment Component are presented in Table 41. As revealed in the table, the mean score made by the high achieving group is 114.40 points greater than the mean score for the low achieving group. This difference in means show a "t" ratio of 2.39 which is statistically significant.

A mean of 114.40 which was made by the high achieving group is equivalent to a percentile rank of 50, when compared to the norms for the test. The low achieving group obtained a mean score of 97.60 which is equivalent to a percentile rank of 30.

TABLE 41

STATISTICAL DATA DERIVED FROM RAW SCORES MADE ON TOTAL ADJUSTMENT  
COMPONENT OF THE CALIFORNIA TEST OF PERSONALITY BY THE  
HIGH ACHIEVING AND LOW ACHIEVING GROUP

Group	Mean	Median	S.D.	S.E.	SEDm	M <sub>1</sub> -M <sub>2</sub>	"t"
High Achieving	114.40	120.75	19.78	5.29	7.05	16.80	2.39*
Low Achieving	97.60	100.00	17.43	4.66			

\*  
Significant difference

As indicated by Table 42, and graphically presented in Figure 18, there is overlapping of scores made by both groups between the interval 85-129. Four low achieving pupils and one high achieving pupil scored below this interval.

TABLE 42

FREQUENCY DISTRIBUTION OF RAW SCORES MADE ON TOTAL  
ADJUSTMENT COMPONENT OF THE CALIFORNIA TEST OF  
PERSONALITY BY THE HIGH ACHIEVING GROUP AND  
THE LOW ACHIEVING GROUP

SCORES	HIGH ACHIEVING	LOW ACHIEVING
	Frequency	Frequency
135-139	1	0
130-134	2	0
125-129	2	2
120-124	3	0
115-119	3	0
110-114	0	1
105-109	0	3
100-104	1	2
95- 99	1	0
90- 94	0	1
85- 89	1	2
80- 84	0	0
75- 79	0	1
70- 74	0	3
65- 69	0	0
60- 64	0	0
55- 59	1	0

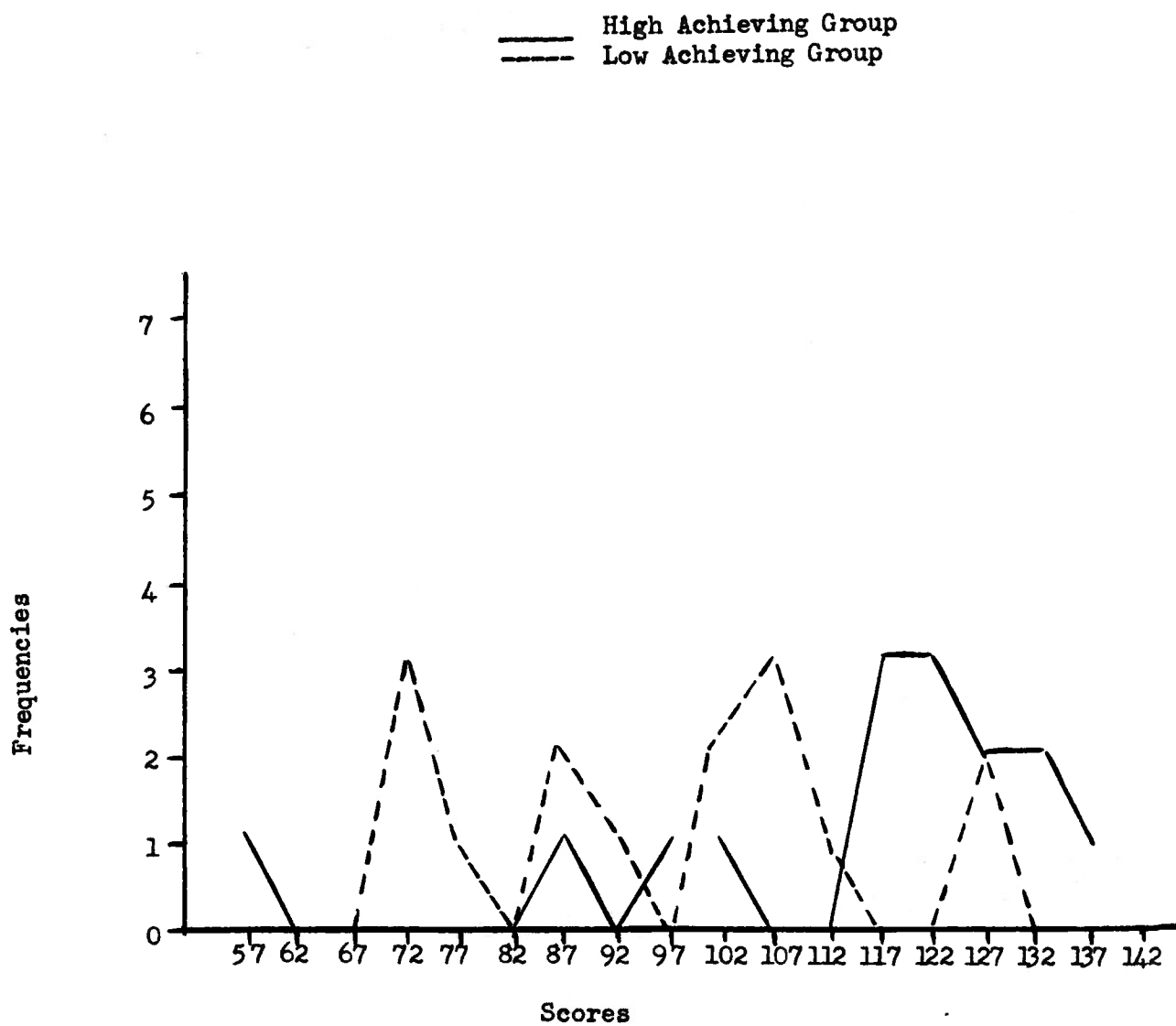


Fig. 18.- Frequency polygon plotted from raw scores made by High Achieving and Low Achieving Group on Total Adjustment Component of the California Test of Personality

Results of the SRA Junior Inventory.— Statistical data derived from raw scores made on different components of the SRA Junior Inventory by the high achieving group and the low achieving group are presented in this section under the following subheadings: My Health, Getting Along with Other People, About Me and School, About Me and My Home, Comparison of Problems with Norms, and Summary of Prevalent Problems.

Results of the SRA Junior Inventory (My Health).— As indicated in Table 43, the mean score made by the high achieving group is 3.17 points greater than the mean score made by the low achieving group. The obtained "t" indicates insignificant differences between the two groups on My Health Component.

TABLE 43

STATISTICAL DATA DERIVED FROM RAW SCORES MADE ON (MY HEALTH) SRA JUNIOR INVENTORY BY THE HIGH ACHIEVING GROUP AND THE LOW ACHIEVING GROUP

Group	Mean	S.D.	S.E.	$M_1 - M_2$	"t"
High Achieving	7.40	6.12	1.64	3.17	1.70**
Low Achieving	4.13	3.31	.88		

\*\*

Insignificant difference

A frequency distribution of raw scores is presented in Table 44, and a graphic presentation of raw scores is revealed in Figure 19. Overlapping of scores is manifested throughout the distribution.

TABLE 44

FREQUENCY DISTRIBUTION OF RAW SCORES MADE ON (MY HEALTH) SRA  
JUNIOR INVENTORY FOR THE HIGH ACHIEVING GROUP AND  
THE LOW ACHIEVING GROUP

Scores	High Frequency	Low Frequency
22-23	1	0
20-21	0	0
18-19	0	0
16-17	2	0
14-15	0	0
12-13	0	2
10-11	0	0
8- 9	1	0
6- 7	3	0
4- 5	5	5
2- 3	2	6
0- 1	1	2



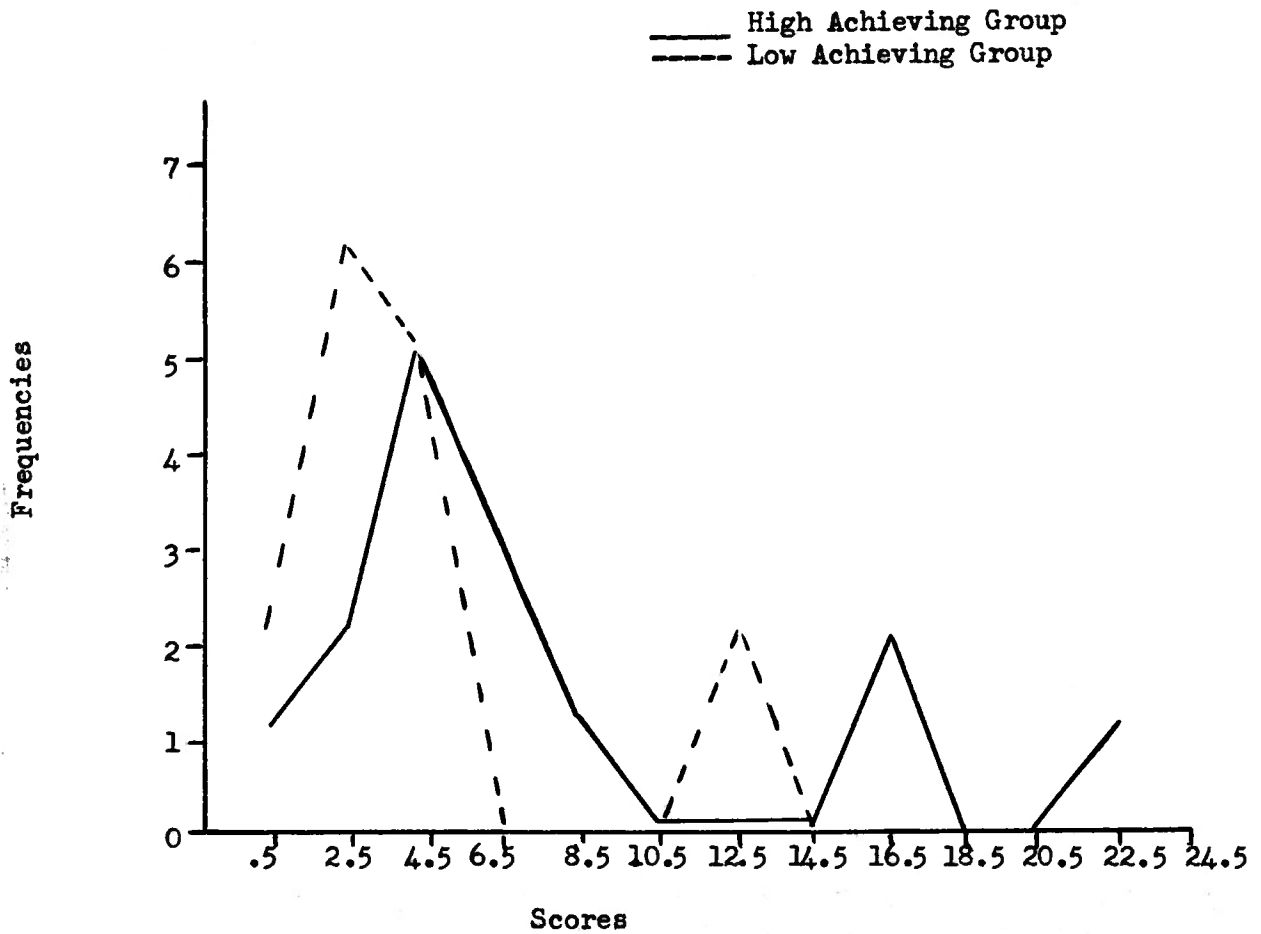


Fig. 19.- Frequency polygon plotted from raw scores made on (My Health) SRA Junior Inventory by High Achieving and Low Achieving Group

Results of the SRA Junior Inventory (Getting Along with Other People).---

Statistical data derived from raw scores made on Getting Along with Other People Component by the high achieving group, and the low achieving group are presented in Table 45. As indicated in the table, the mean score for the high achieving group is 1.80 points greater than the mean score for the low achieving group. This difference between means, when checked by the "t" test, reveals an insignificant difference.

TABLE 45

STATISTICAL DATA DERIVED FROM RAW SCORES MADE ON (GETTING ALONG WITH OTHER PEOPLE) SRA JUNIOR INVENTORY BY HIGH ACHIEVING AND LOW ACHIEVING GROUP

Group	Mean	S.D.	S.E.	$M_1 - M_2$	"t"
High Achieving	3.90	.28	.08	1.80	.28
Low Achieving	2.10	3.55	.95		

\*

Insignificant difference

A frequency distribution of raw scores made by both groups is presented in Table 46. Figure 20, shows graphically the distribution of raw scores for the two groups. Overlapping of scores is manifested throughout the distribution.

TABLE 46

FREQUENCY DISTRIBUTION OF RAW SCORES MADE ON (GETTING ALONG  
WITH OTHER PEOPLE) SRA JUNIOR INVENTORY FOR THE HIGH  
ACHIEVING AND LOW ACHIEVING GROUP

Scores	High Frequency	Low Frequency
18-19	1	0
16-17	0	0
14-15	1	0
12-13	0	1
10-11	0	0
8- 9	1	0
6- 7	0	1
4- 5	1	2
2- 3	4	0
0- 1	7	11

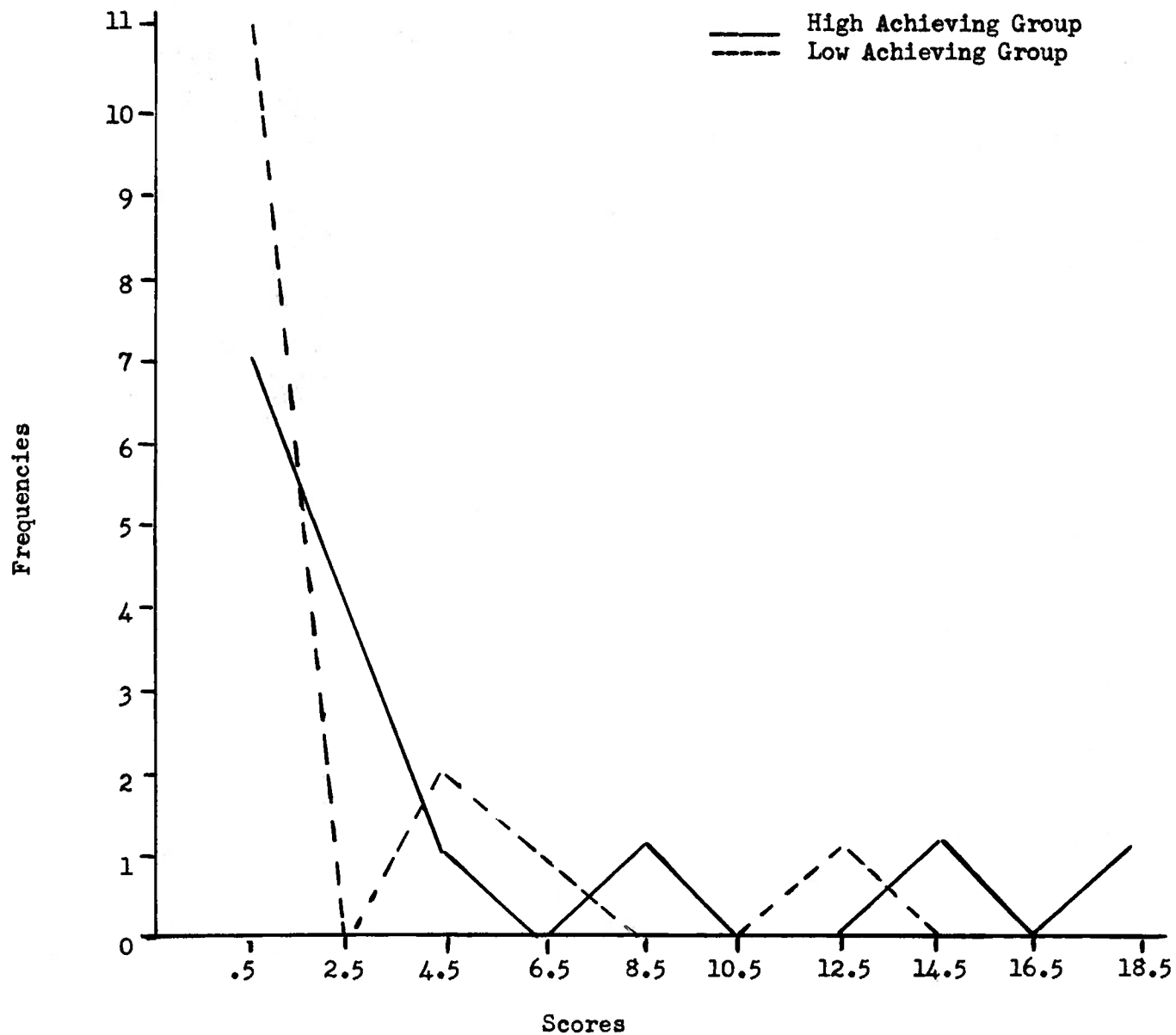


Fig. 20.- Frequency polygon plotted from raw scores made on (Getting Along With Other People) SRA Junior Inventory by High Achieving and Low Achieving Group

Results of the SRA Junior Inventory (About Me and School).--- Statistical results derived from raw scores made on About Me and School Component for the high achieving group, and the low achieving group are presented in Table 47. As indicated in the table, the mean score for the high achieving group is 4.00 greater than the mean score for the low achieving group. This difference in means, as revealed by the "t" test, is statistically insignificant.

TABLE 47

STATISTICAL DATA DERIVED FROM RAW SCORES MADE ON (ABOUT ME AND SCHOOL)  
SRA JUNIOR INVENTORY FOR THE HIGH ACHIEVING GROUP AND LOW  
ACHIEVING GROUP

Group	Mean	S.D.	S.E.	$M_1 - M_2$	"t"
High Achieving	5.80	5.22	1.40	4.00	2.33*
Low Achieving	1.70	1.78	.48		

\*

Significant difference

A frequency distribution of raw scores is presented in Table 48, from raw scores made by both groups. Figure 21, gives a graphic presentation of the raw scores made by the two groups. The distribution shows two low achieving pupils scoring between the interval, 10-12 and four high achieving pupils scoring between the interval, 6-9 without overlapping of scores. There was slight overlapping of scores manifested throughout the distribution.

TABLE 48

FREQUENCY DISTRIBUTION DERIVED FROM RAW SCORES MADE  
ON (ABOUT ME AND SCHOOL) SRA JUNIOR INVENTORY  
FOR THE HIGH ACHIEVING GROUP AND THE LOW  
ACHIEVING GROUP

Scores	High Frequency	Low Frequency
16-17	2	0
14-15	1	1
12-13	0	1
10-11	0	1
8- 9	1	0
6- 7	3	0
4- 5	0	3
2- 3	4	3
0- 1	4	6

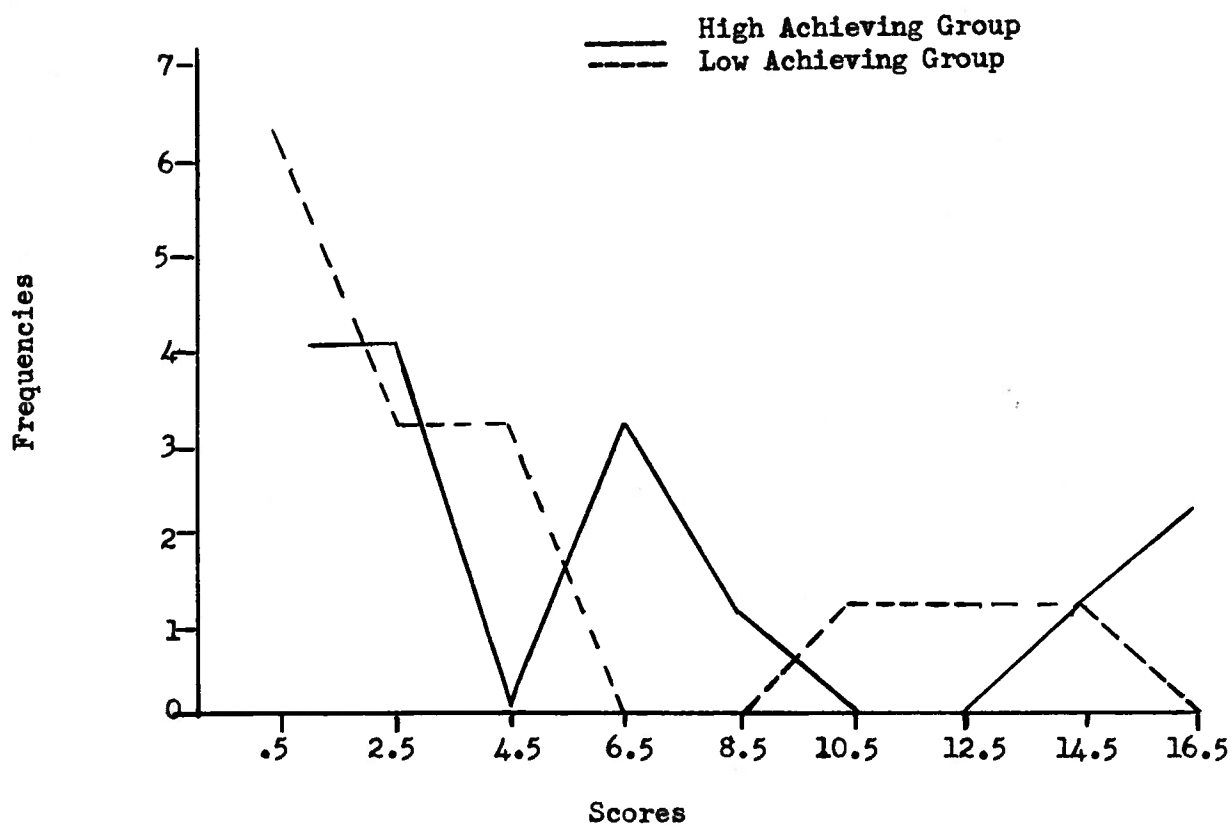


Fig. 21.- Frequency polygon plotted from raw scores made on (About Me and School) SRA Junior Inventory for High Achieving and Low Achieving Group

Results of the SRA Junior Inventory (About Myself).--- Data obtained from raw scores made by high achieving group and low achieving group on "About Myself" are presented in Table 49. The mean score for the high achieving group is 5.20 points higher than the mean score for the low achieving group. The obtained "t" of 2.09 indicates a significant difference between the two groups on About Myself Component.

TABLE 49

STATISTICAL DATA DERIVED FROM RAW SCORES MADE ON (ABOUT MYSELF) SRA JUNIOR INVENTORY BY THE HIGH ACHIEVING GROUP AND THE LOW ACHIEVING GROUP

Group	Mean	S.D.	S.E.	$M_1 - M_2$	"t"
High Achieving	8.80	7.72	2.06	5.20	2.09*
Low Achieving	3.60	5.20	1.37		

\*

Significant difference

Table 50, gives a frequency distribution for raw scores made on About Myself Component by the two groups. Figure 22, shows graphically the distribution of scores. There was overlapping manifested between the interval, 0-7 with ten high achieving pupils and thirteen low achieving pupils. There was additional overlapping manifested between the interval, 12-15 with three high achieving pupils and one low achieving pupil.



TABLE 50

FREQUENCY DISTRIBUTION OF RAW SCORES MADE ON (ABOUT MYSELF)  
SRA JUNIOR INVENTORY BY HIGH ACHIEVING AND LOW ACHIEV-  
ING PUPILS

Scores	High Frequency	Low Frequency
24-25	2	0
22-23	0	0
20-21	0	0
18-19	0	1
16-17	0	0
14-15	2	1
12-13	1	0
10-11	0	0
8- 9	1	0
6- 7	1	1
4- 5	5	2
2- 3	1	1
0- 1	2	9

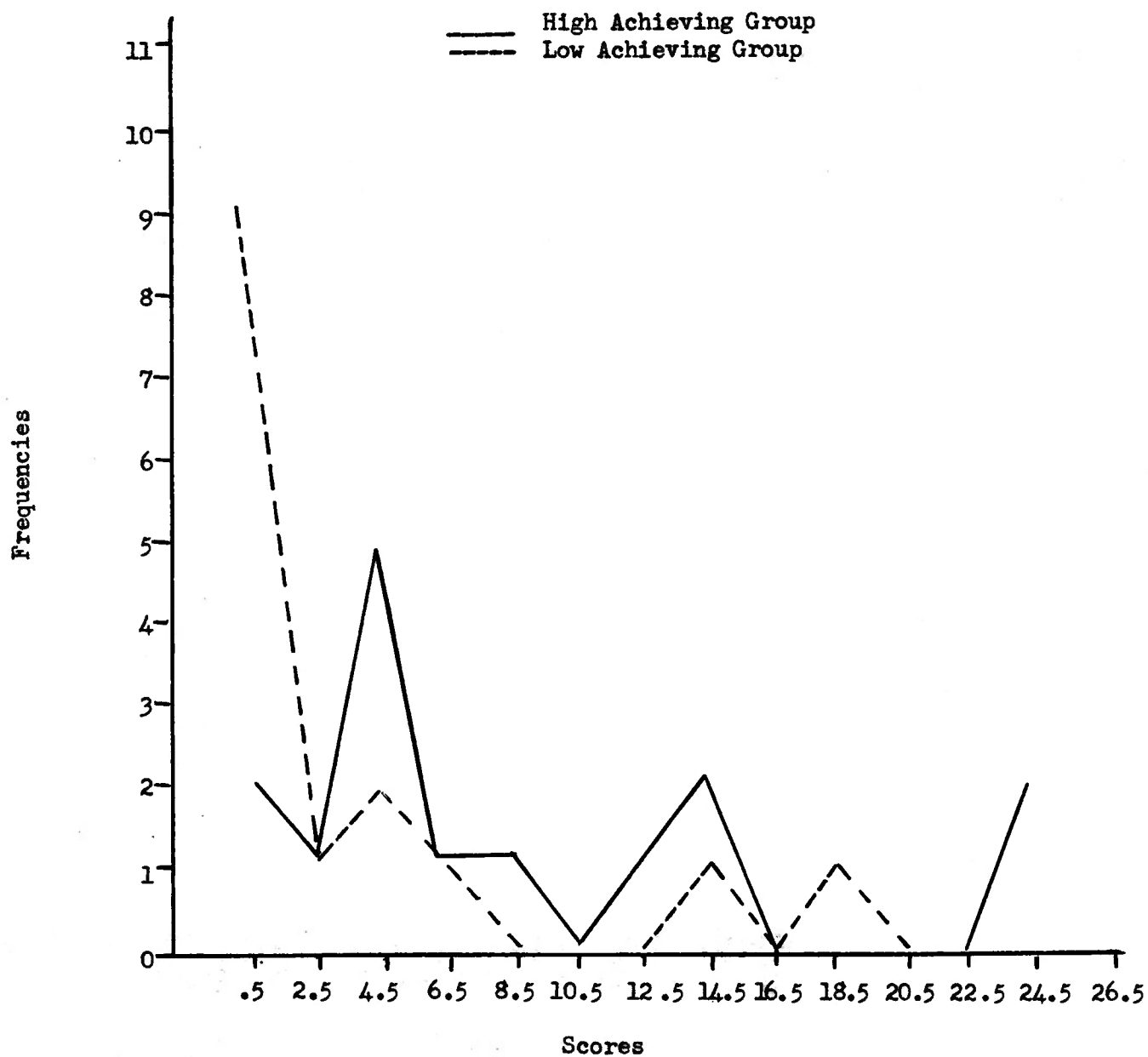


Fig. 22.- Frequency polygon plotted from raw scores made on (About Myself) SRA Junior Inventory for High Achieving and Low Achieving Group

Results of the SRA Junior Inventory (About Me and My Home).--- Data derived from raw scores made on About Me and My Home Component for the high achieving group, and the low achieving group are presented in Table 51. The table indicates that the mean score for the high achieving group is 4.00 greater than the mean score for the low achieving group. This difference in means reveals a "t" of 2.33 which is significant.

TABLE 51

STATISTICAL DATA DERIVED FROM RAW SCORES MADE ON (ABOUT ME AND MY HOME)  
SRA JUNIOR INVENTORY BY THE HIGH ACHIEVING GROUP AND THE LOW  
ACHIEVING GROUP

Group	Mean	S.D.	S.E.	$M_1 - M_2$	"t"
High Achieving	5.70	6.20	1.66	4.00	2.33*
Low Achieving	1.70	1.78	.48		

\*

Significant difference

As indicated in Table 52 and Figure 23, there was slight overlapping between the interval, 0-7. There were no pupils in the low achieving group scoring above this interval. Between the interval, 8-23, there were three high achieving pupils without overlapping of scores by both groups.

TABLE 52

FREQUENCY DISTRIBUTION OF RAW SCORES MADE ON (ABOUT ME AND MY HOME) SRA JUNIOR INVENTORY BY HIGH ACHIEVING AND LOW ACHIEVING PUPILS

Scores	High Frequency	Low Frequency
22-23	1	0
20-21	0	0
18-19	0	0
16-17	0	0
14-15	1	0
12-13	1	0
10-11	0	0
8- 9	0	0
6- 7	1	1
4- 5	4	1
2- 3	3	5
0- 1	4	8

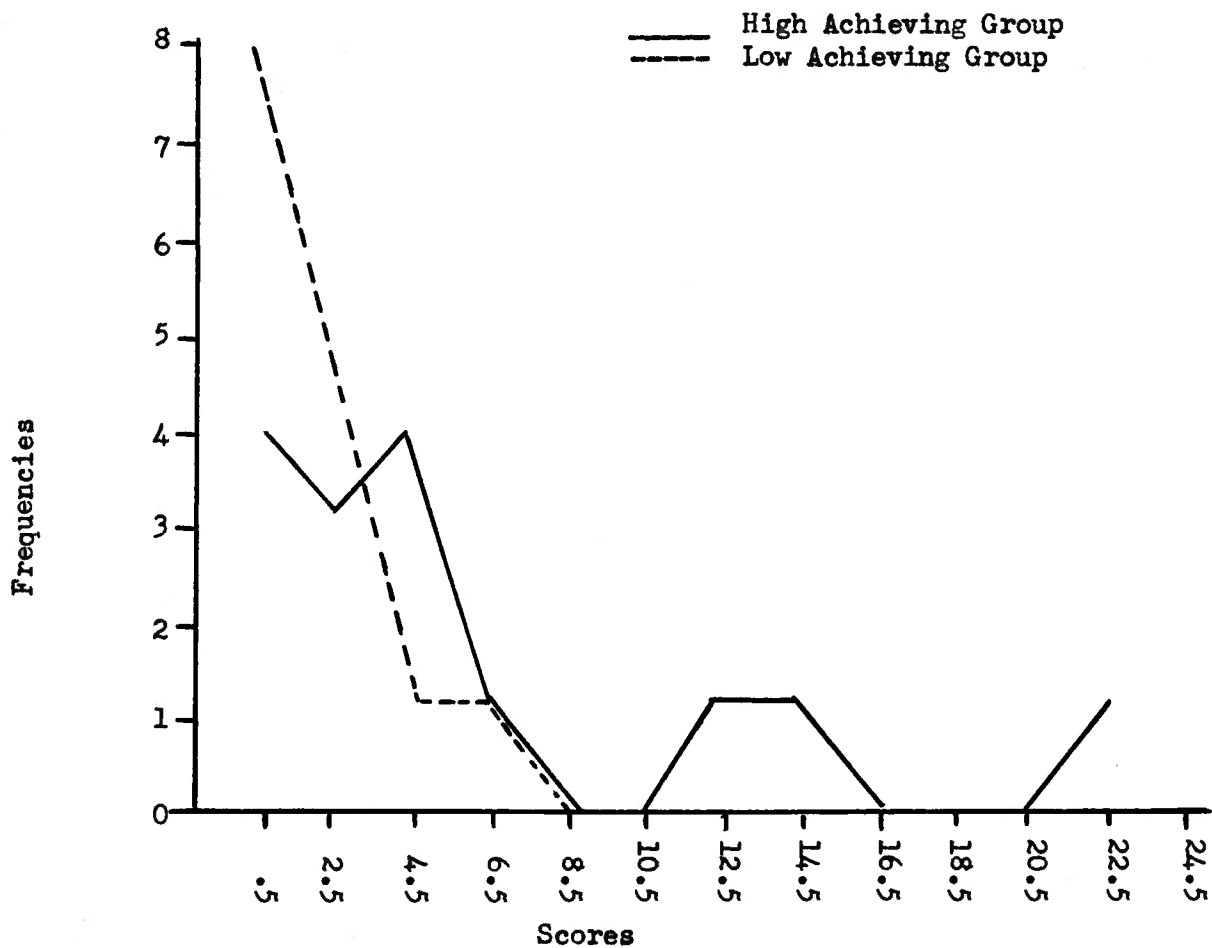


Fig. 23.- Frequency polygon plotted from raw scores made on (About Me and My Home) SRA Junior Inventory for the High Achieving and Low Achieving Group

Results of the SRA Junior Inventory (Comparison of Problems with Norms).— Data derived from a comparison of mean scores made by the high achieving and low achieving group with percentile ranks on different component of the SRA Junior Inventory. As indicated in Table 53, a percentile rank of 66 on About Me and School is the lowest reported for the high achieving group.

TABLE 53

A COMPARISON OF THE MEAN SCORES MADE BY THE HIGH ACHIEVING AND LOW ACHIEVING GROUP ON DIFFERENT AREAS OF THE SRA JUNIOR INVENTORY WITH PERCENTILE RANKS FOR TEST NORMS

AREA	HIGH ACHIEVING		LOW ACHIEVING	
	Mean Score	Percentile Rank	Mean Score	Percentile Rank
My Health	7.40	74	4.13	55
Getting Along With Other People	3.90	70	2.10	51
About Me and My School	5.80	66	4.10	49
About Myself	8.80	78	3.60	50
About Me and My Home	5.70	79	1.70	47

This means that the high achieving group checked 66 per cent more problems; than the subjects used in the test norms. The highest percentile rank reported for the high achieving group is in the area: About Me and My home with a percentile rank of 79.

The lowest percentile rank reported for the low achieving group is in the area: About Me and My Home with a percentile rank of 47, indicating that 53 per cent of the subjects used in the standardized samples scored above this group. A percentile rank of 55 in the area: My Health is the highest rank indicated by the low achieving group.

The lowest percentile rank received by the high achieving group in any area is 11 percentile points higher than the highest percentile rank made by the low achieving group in any area.

Results of the SRA Junior Inventory (Total Problem Area).--- Data derived from raw scores made on Total Problem Area by the high achieving group and low achieving group are presented in Table 54. As indicated by the table, the mean score for the high achieving group is 15.90 points greater than the mean score for the low achieving group. The obtained "t" reveals an insignificant difference between the number of total problems checked by the high achieving group and the low achieving group for all problem areas.

TABLE 54

STATISTICAL DATA DERIVED FROM RAW SCORES MADE ON (TOTAL PROBLEM AREA)  
SRA JUNIOR INVENTORY FOR THE HIGH ACHIEVING GROUP AND THE LOW  
ACHIEVING GROUP

Group	Mean	S.D.	S.E.	$M_1 - M_2$	"t"
High Achieving	31.50	29.63	7.92	15.90	1.74**
Low Achieving	15.60	17.11	4.57		

\*\*

Insignificant difference

As indicated by Table 55, and Figure 24, there appeared to be slight overlapping of scores for both groups between the intervals, 0-29 and 60-69.

TABLE 55

FREQUENCY DISTRIBUTION OF TOTAL PROBLEMS CHECKED BY HIGH ACHIEVING AND LOW ACHIEVING GROUP ON THE SRA JUNIOR INVENTORY

Scores	High Frequency	Low Frequency
100-109	1	0
90- 99	1	0
80- 89	0	0
70- 79	0	0
60- 69	1	1
50- 59	0	1
40- 49	0	0
30- 39	3	0
20- 29	1	1
10- 19	5	4
0- 9	3	8



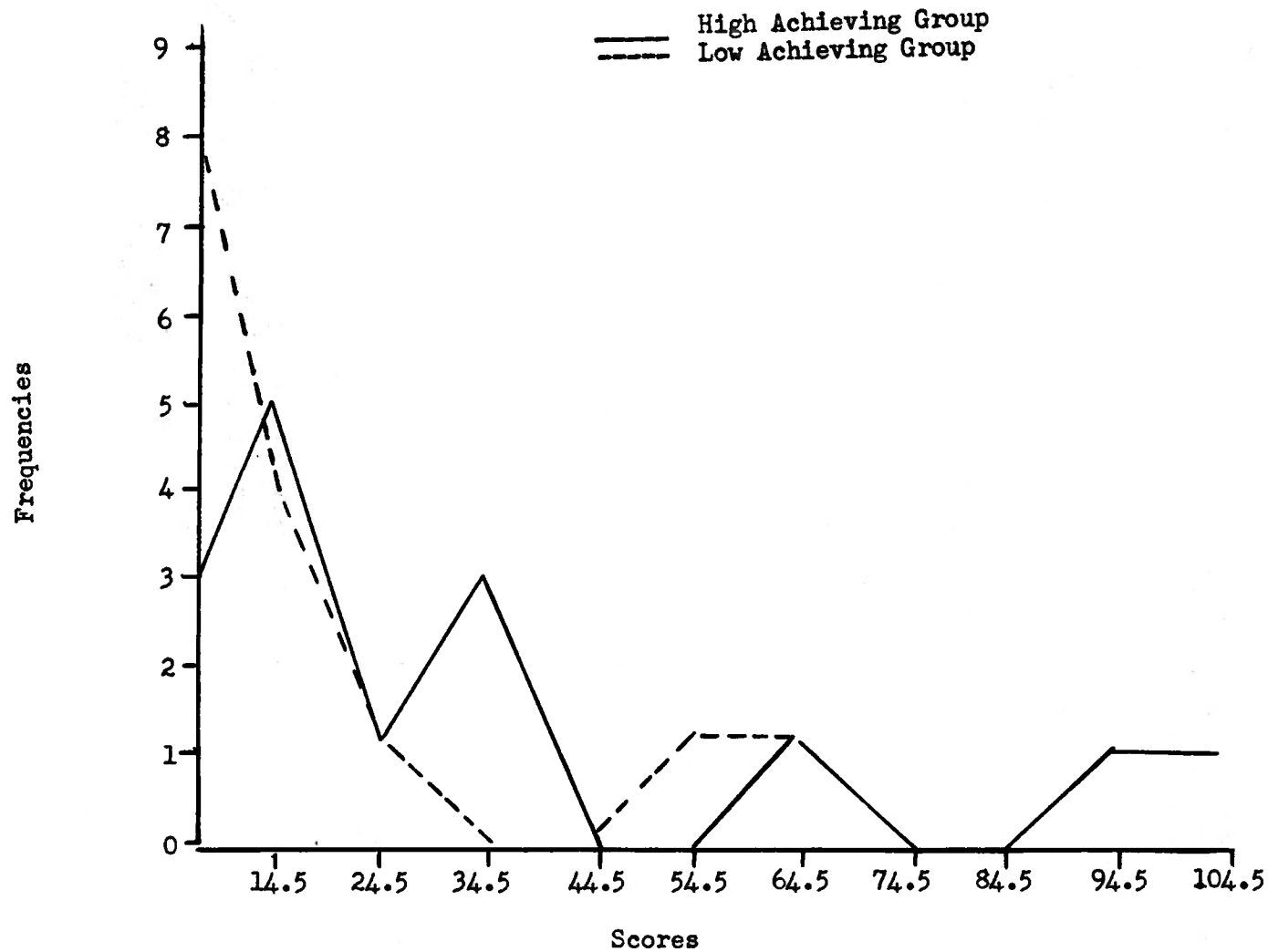


Fig. 24.- Frequency polygon plotted from raw scores on Total Problems checked by High Achieving and Low Achieving Group on SRA Junior Inventory

From a total of 223 items found in the SRA Junior Inventory, 163 different items with a frequency of 473 were checked by the high achieving group. The low achieving group checked 119 different items with a frequency of 234. Items frequently checked within the five problem areas in the Inventory by the high achieving group were in the areas: "About Myself," 132; "My Health," 111. For the low achieving group, the largest number of items frequently checked were in the areas: "My Health," 62; "About Me and My School," 61. The least items frequently checked by the high achieving group were in the area: "Getting Along with Other People," 58. The least items frequently checked by the low achieving group were in the area: "About Me and My Home," 25.

TABLE 56

A SUMMARY OF THE TOTAL NUMBER OF DIFFERENT PROBLEMS WITHIN EACH PROBLEM AREA CHECKED BY THE HIGH ACHIEVING AND LOW ACHIEVING GROUP ON THE SRA JUNIOR INVENTORY

PROBLEM AREA	HIGH ACHIEVING		LOW ACHIEVING	
	Number of Different Items	Frequencies	Number of Different Items	Frequencies
My Health	34	111	26	62
Getting Along With Other People	27	58	22	32
About Me and My School	33	87	28	61
About Myself	39	132	28	54
About Me and My Home	30	85	15	25
Total	163	473	119	234

Results of Correlations Between Test.-- There were two major objectives in the treatment of the data involved in this research, to wit: 1) to determine the significant differences, if any, between the fifteen high achieving and low achieving pupils in personality, intelligence, and problems; and 2) to determine the degree of correlation between the scores obtained by the subjects on the personality test, the intelligence test, and the problem inventory used to gather data in this study.

This section of the report will, therefore, present a series of thirty correlations as derived from the test scores on selected major components of the Intelligence Test with the Personality Test, the Intelligence Test with the Problem Inventory, and the Personality Test with the Problem Inventory. The correlations which are found to be present are presented in Tables 57-65 that follow.

Correlation Between (Personal Adjustment) California Test of Personality and (Major Factors) California Test of Mental Maturity.-- Statistical data derived from the results of correlations between (Personal Adjustment) California Test of Personality, and (Major Factors) California Test of Mental Maturity, for the high achieving group and low achieving group are presented in Tables 57 and 59, respectively.

As indicated in Table 57, significant relationships for the high achieving group are indicated between Personal Adjustment and (1) Logical Reasoning, (2) Verbal Reasoning. The obtained "t's" for Personal Adjustment and (1) Spatial Relationship, (2) Numerical Reasoning revealed insignificant relationship.

Table 58, gives statistical data derived from correlation results between Personal Adjustment and Major Mental Factors, for the low achieving group.

TABLE 57

STATISTICAL DATA OBTAINED FROM THE RESULTS OF CORRELATIONS BETWEEN  
 (PERSONAL ADJUSTMENT) CALIFORNIA TEST OF PERSONALITY AND  
 (MAJOR FACTORS) CALIFORNIA TEST OF MENTAL MATURITY  
 FOR THE HIGH ACHIEVING GROUP

Variables	N	"r"	Obtained "t"
Personal Adjustment and Spatial Relationship	15	.02	.05**
Personal Adjustment and Logical Reasoning	15	.55	2.40*
Personal Adjustment and Numerical Reasoning	15	.49	2.03**
Personal Adjustment and Verbal Reasoning	15	.71	3.67*

\*

Significant

\*\*

Insignificant

TABLE 58

STATISTICAL DATA OBTAINED FROM CORRELATIONS BETWEEN (PERSONAL ADJUSTMENT)  
 CALIFORNIA TEST OF PERSONALITY AND (MAJOR FACTORS) CALIFORNIA TEST  
 OF MENTAL MATURITY FOR LOW ACHIEVING GROUP

Variables	N	"r"	Obtained "t"
Personal Adjustment and Spatial Relationship	15	-.10	.35**
Personal Adjustment and Logical Reasoning	15	.18	.66**
Personal Adjustment and Numerical Reasoning	15	-.01	.02**
Personal Adjustment and Verbal Reasoning	15	-.35	1.22**

\*\*

Insignificant

The correlations obtained between Personal Adjustment, and 1) Spatial Relationship, 2) Logical Reasoning, 3) Numerical Reasoning, 4) Verbal Reasoning revealed insignificant relationships.

Correlations Between (Social Adjustment) California Test of Personality and (Major Factors) California Test of Mental Maturity.--- Statistical data derived from the results of correlations between Social Adjustment and Major Mental Factors for the high achieving group and the low achieving group are presented in Tables 59 and 60, respectively.

In Table 59, correlation results between Social Adjustment and Major Mental Factors for the high achieving group reveal insignificant relationship between Social Adjustment and 1) Spatial Relationship, 2) Logical Reasoning, 3) Numerical Reasoning. There is a significant relationship between Social Adjustment and Verbal Reasoning for the high achieving group.

TABLE 59

STATISTICAL DATA OBTAINED FROM CORRELATIONS BETWEEN (SOCIAL ADJUSTMENT) CALIFORNIA TEST OF PERSONALITY AND (MAJOR FACTORS) CALIFORNIA TEST OF MENTAL MATURITY FOR THE HIGH ACHIEVING GROUP

Variables	N	"r"	Obtained "t"
Social Adjustment and Spatial Relationship	15	.06	.20**
Social Adjustment and Logical Reasoning	15	.47	1.93**
Social Adjustment and Numerical Reasoning	15	.37	1.42**
Social Adjustment and Verbal Reasoning	15	.52	2.21*

\*Significant

\*\*Insignificant

As indicated in Table 60, the relationships between Social Adjustment and 1) Spatial Relationship, 2) Logical Reasoning, 3) Numerical Reasoning, 4) Verbal Reasoning, are insignificant for the low achieving group.

TABLE 60

STATISTICAL DATA OBTAINED FROM CORRELATIONS BETWEEN (SOCIAL ADJUSTMENT) CALIFORNIA TEST OF PERSONALITY AND (MAJOR FACTORS) CALIFORNIA TEST OF MENTAL MATURITY FOR THE LOW ACHIEVING GROUP

Variables	N	"r"	Obtained "t"
Social Adjustment and Spatial Relationship	15	-.25	.91 **
Social Adjustment and Logical Reasoning	15	.12	.44 **
Social Adjustment and Numerical Reasoning	15	-.05	.17 **
Social Adjustment and Verbal Reasoning	15	-.35	1.33 **

\*\*

Insignificant

Correlations Between (Total Adjustment) California Test of Personality and (Major Factors) California Test of Mental Maturity.— Statistical data derived from the correlation between Total Adjustment and Major Mental Factors for the high achieving group and low achieving group are presented in Tables 61 and 62, respectively.

As indicated in Table 61, the correlation between Total Personality and Verbal Reasoning, indicates a significant relationship. The correlations are insignificant between Total Adjustment and 1) Spatial Relationships, 2) Logical Reasoning, 3) Numerical Reasoning for the high achieving group.

TABLE 61

STATISTICAL DATA OBTAINED FROM CORRELATIONS BETWEEN (TOTAL ADJUSTMENT)  
CALIFORNIA TEST OF PERSONALITY AND (MAJOR FACTORS) CALIFORNIA  
TEST OF MENTAL MATURITY FOR THE HIGH ACHIEVING GROUP

Variables	N	"r"	Obtained "t"
Total Adjustment and Spatial Relationship	15	.49	2.04**
Total Adjustment and Logical Reasoning	15	.48	1.99**
Total Adjustment and Numerical Reasoning	15	.44	1.78**
Total Adjustment and Verbal Reasoning	15	.75	4.10*

\*

Significant

\*\*

Insignificant

Table 62, indicates the correlation results obtained between Total Adjustment and Major Mental Factors for the low achieving group.

TABLE 62

STATISTICAL DATA OBTAINED FROM CORRELATIONS BETWEEN (TOTAL ADJUSTMENT)  
CALIFORNIA TEST OF PERSONALITY AND (MAJOR FACTORS) CALIFORNIA  
TEST OF MENTAL MATURITY FOR THE LOW ACHIEVING GROUP

Variables	N	"r"	Obtained "t"
Total Adjustment and Spatial Relationship	15	-.25	.94**
Total Adjustment and Logical Reasoning	15	-.17	.63**
Total Adjustment and Numerical Reasoning	15	-.22	.83**
Total Adjustment and Verbal Reasoning	15	-.26	.96**

\*\*

Insignificant

Correlation Between (Total Adjustment) California Test of Personality and (Total Mental Factors) California Test of Mental Maturity.-- Statistical data derived from the correlations between Total Adjustment and Total Mental Factors for the high achieving group, and for the low achieving group are presented in Table 63. As indicated in the table, the relationship between Total Adjustment and Total Mental Factors for the high achieving group is statistically significant. The coefficient of correlation revealed by the low achieving group between Total Adjustment and Total Mental Factors is insignificant.

TABLE 63

STATISTICAL DATA DERIVED FROM CORRELATIONS BETWEEN (TOTAL ADJUSTMENT)  
CALIFORNIA TEST OF PERSONALITY AND (TOTAL MENTAL FACTORS)  
CALIFORNIA TEST OF MENTAL MATURITY FOR THE HIGH  
ACHIEVING AND LOW ACHIEVING GROUP

Group	N	"r"	"t"
High Achieving	15	-.86	6.02*
Low Achieving	15	-.32	1.23**

\*  
Significant  
\*\*  
Insignificant

Correlations Between (Total Problems) SRA Junior Inventory and (Total Mental Factors) California Test of Mental Maturity.-- Statistical data derived from correlations between Total Problems and Total Mental Factors for the high achieving group and low achieving group are presented in Table 64. As revealed in the table, the correlation obtained by the high



achieving group between Total Problems and Total Mental Factors indicates a significant relationship. The correlation between Total Problems and Total Mental Factors for the low achieving group is statistically insignificant.

TABLE 64

STATISTICAL DATA DERIVED FROM CORRELATIONS BETWEEN (TOTAL PROBLEMS) SRA JUNIOR INVENTORY AND (TOTAL MENTAL FACTORS) CALIFORNIA TEST OF MENTAL MATURITY FOR THE HIGH ACHIEVING GROUP AND LOW ACHIEVING GROUP

Group	N	"r"	"t"
High Achieving	15	-.76	4.20*
Low Achieving	15	.02	.13**

\*Significant

\*\*Insignificant

Correlation Results Between (Total Adjustment) California Test of Personality and (Total Problems) SRA Junior Inventory.— Data derived from the correlations between Total Adjustment and Total Problems for the high achieving and low achieving group are presented in Table 65. For the high achieving group, the obtained "t" value of 3.66 indicates a significant correlation between Total Adjustment and Total Problems. The correlation between Total Adjustment and Total Mental Factors for the low achieving group is insignificant.

Differences Between Correlations.— Statistical data derived from the differences between correlations of (Total Mental Factors) Intelligence Test,

TABLE 65

STATISTICAL DATA DERIVED FROM CORRELATIONS BETWEEN (TOTAL ADJUSTMENT)  
CALIFORNIA TEST OF PERSONALITY AND (TOTAL PROBLEMS) SRA  
JUNIOR INVENTORY FOR THE HIGH ACHIEVING AND LOW  
ACHIEVING GROUP

Group	N	"r"	"t"
High Achieving	15	.71	3.66*
Low Achieving	15	-.23	.84**

\* Significant

\*\* Insignificant

(Total Adjustment) Personality Test, and (Total Problems) SRA Junior Inventory, for the high achieving group and the low achieving group are presented in Tables 66, 67, and 68. The differences in correlations for the two groups are discussed under the following captions: 1) Results of the Difference Between Total Adjustment and Total Problems, 2) Results of Difference Between Total Mental Factors and Total Adjustment, and 3) the Results of Difference Between Total Problems and Total Mental Factors.

Results of the Difference Between Total Adjustment and Total Problems.--

The difference obtained between the "r's" for Total Adjustment and Total Problems for the high achieving group and the low achieving group are presented in Table 66. As indicated by the table, the high achieving group has a "z" score .96 points greater than the "z" score made by the low achieving group. The "t" test reveals a significant difference between the correlations for the high achieving group and low achieving group on Total Adjustment and Total Problems.

TABLE 66

STATISTICAL DIFFERENCES OBTAINED BETWEEN CORRELATIONS MADE BY HIGH  
ACHIEVING GROUP AND LOW ACHIEVING GROUP ON (TOTAL ADJUSTMENT)  
CALIFORNIA TEST OF PERSONALITY AND (TOTAL PROBLEMS) SRA  
JUNIOR INVENTORY

VARIABLES	HIGH ACHIEVING		LOW ACHIEVING			"t"
	"r"	"z"	"r"	"z"	SEDz	
Total Adjustment and Total Problems	-.86	1.29	-.32	.33	.40	2.40*

\* Significant

Results of Difference Between Total Mental Factors and Total Adjustment.--

Results of the difference derived from correlations made by high achieving group and low achieving group between the (Total Mental Factors) California Test of Mental Maturity, and (Total Adjustment) California Test of Personality, are presented in Table 67.

TABLE 67

STATISTICAL DIFFERENCES OBTAINED BETWEEN CORRELATIONS MADE BY HIGH  
ACHIEVING GROUP AND LOW ACHIEVING GROUP ON (TOTAL MENTAL FAC-  
TORS) CALIFORNIA TEST OF MENTAL MATURITY AND (TOTAL  
ADJUSTMENT) CALIFORNIA TEST OF PERSONALITY

VARIABLES	HIGH ACHIEVING		LOW ACHIEVING			"t"
	"r"	"z"	"r"	"z"	SEDz	
Total Mental Factors and Total Adjustment	.71	.89	-.23	.23	.40	1.50**

\*\* Insignificant

As indicated in the table, the high achieving group has a "z" score .66 points greater than the "z" score for the low achieving group, with a standard error of the difference between "z's" being .40. As revealed by the "t", the difference between the correlations obtained by the two groups on Total Mental Factors and Total Adjustment is insignificant.

Results of Difference Between Total Problems and Total Mental Factors.--

Results of the difference derived from correlations made by high achieving group and low achieving group between (Total Problems) SRA Junior Inventory, and (Total Mental Factors) California Test of Mental Maturity, are presented in Table 68.

TABLE 68

STATISTICAL DIFFERENCE DERIVED FROM CORRELATIONS MADE BY HIGH ACHIEVING GROUP AND LOW ACHIEVING GROUP BETWEEN (TOTAL PROBLEMS) SRA JUNIOR INVENTORY AND (TOTAL MENTAL FACTORS) CALIFORNIA TEST OF MENTAL MATURITY

VARIABLES	HIGH ACHIEVING		LOW ACHIEVING			
	"r"	"z"	"r"	"z"	SEDz	"t"
Total Problems and Total Mental Factors	-.76	1.00	.04	.04	.40	2.40*

\* Significant

The "z" score obtained by the high achieving group is .96 points greater than the "z" score for the low achieving group. The standard error of the difference in "z" is .40. As indicated by the "t" ratio, the difference between the correlations obtained by the high achieving group and low achieving group is statistically significant.

## CHAPTER IV

### SUMMARY AND CONCLUSIONS

Problem, Purposes and Methodology.--- The problem in this study was to compare the intelligence, personality traits, and prevalent problems of a group of fourth, fifth, and sixth grade pupils of the Atlanta University Laboratory School, Atlanta, Georgia who scored above and below one standard deviation from the mean in achievement.

The major purpose of the study was to compare and contrast the mental development, personality traits, and prevalent problems of the two groups.

The specific purposes of this study were as follows:

1. To identify the high achieving and low achieving pupils from achievement test results.
2. To describe overlapping of the distribution of raw scores made by the high achieving and low achieving group.
3. To determine the prevalent problems common to each group.
4. To determine the prevalent problems common to both groups.
5. To determine the difference, if any, in personality traits of the high achieving group and the low achieving group
6. To determine the difference, if any, in intelligence between the high achieving group and the low achieving group.
7. To determine the difference, if any, in prevalent problems common to the high achieving group and the low achieving group.
8. To determine the relationship between intelligence and personality for the high achieving group.
9. To determine the relationship between intelligence and personality for the low achieving group.
10. To determine the relationship between intelligence and prevalent

- problems for the high achieving group.
11. To determine the relationship between intelligence and prevalent problems for the low achieving group.
  12. To determine the relationship between personality and prevalent problems for the high achieving group.
  13. To determine the relationship between personality and prevalent problems for the low achieving group.
  14. To determine the difference, if any, between the "r's" for the high achieving group and the low achieving group obtained between personality and prevalent problems, between intelligence and prevalent problems, between intelligence and personality.

The following terms used in this study have the meanings indicated below:

1. "High Achieving" group referred to those pupils who scored above one standard deviation from the mean on the California Achievement Test.
2. "Low Achieving" group referred to those pupils who scored below one standard deviation from the mean on the California Achievement Test.
3. "Achievement" as used in this study referred to those traits measured by the California Achievement Test.
4. "Intelligence" referred to those traits measured by the California Test of Mental Maturity.
5. "Personality" referred to those traits measured by the California Test of Personality.
6. "Prevalent Problems" as used in this study referred to the characteristics of distracting behavior, as listed in the respective

items on the SRA Junior Inventory.

The study was made at the Atlanta University Laboratory School, Atlanta, Georgia, during the academic year 1954-55. Subjects used in the study were regularly attending members of the fourth, fifth, and sixth grades. There were fifteen high achieving pupils, and fifteen low achieving pupils.

The Normative-Survey Method of research was employed with reference to the use of standardized tests. The tests used in this study were: California Achievement Test (Form BB), 1951; California Short-Form Mental Maturity Test (Form S), 1950; California Test of Personality (Form AA), 1953; and the SRA Junior Inventory (Form A), 1951.

Statistical treatment was employed to the test scores for the interpretation of data required for the conduct of this research.

The criterion for reliability was determined by the application of Fisher's "t" designed for the computation of differences when samples are small. For determining significant differences between means, a "t" of 2.04, at the five per cent level of confidence, was required. The significance of a coefficient of correlation was set at the five per cent level of confidence with thirteen degrees of freedom and a required "t" value of 2.16. In determining the significant differences between coefficients of correlation, a required "t" of 2.17, with twelve degrees of freedom was considered significant at the five per cent level of confidence and gave evidence to reject the null hypothesis.

Summary of Related Literature.— The literature described in the survey presented conflicting theories regarding intelligence and personality. Several investigators have given recognition to the importance of intelligence and personality as they are related to achievement. It was observed

that the exact nature of intelligence is unknown, but can be measured to some degree quantitatively according to the number of tasks an individual can perform.

It was also revealed from the literature that personality is the sum total of the traits and characteristics of an individual. Many of the problems of children arise from the difficulties they have in adjusting to that which is expected of them within their culture, giving incentive for maladjustments.

Related studies, on a whole, revealed that the child whose intellectual development is above average is generally above the average in health, special aptitude, size, and sociability. The correlation between academic achievement and intelligence is high; however personality and intelligence is available.

Findings.— The statistical results from the California Test of Mental Maturity revealed a marked difference between the two groups in Language Factors, Non-Language Factors, and Total Language Factors in favor of the high achieving group. In addition, the Intelligence Quotients obtained by the two groups on the Major Factors of the California Test of Mental Maturity revealed a significant difference in favor of the high achieving group.

Results from the California Test of Personality gave evidence of differences between the two groups in "Social Adjustment" and "Total Adjustment" in favor of the high achieving group. All Components in the Social Adjustment Section, except "Social Skills" and "School Relations" revealed a significant difference. Components comprising the Personal Adjustment Section revealed insignificant differences between the two groups.

The raw scores obtained from the number of problems checked by both



groups on the SRA Junior Inventory revealed a difference in "About Me and My Home" and "About Myself." There were no significant differences obtained between the two groups in "About Myself," "Getting Along with Other People," and "About Me and School." The Total Problems checked on the SRA Junior Inventory by the high achieving group and the low achieving group showed insignificant differences.

From the summary of item frequency for each area, on the SRA Junior Inventory, the rank order of problem areas checked by the high achieving group were: "About Myself," "My Health," "About Me and My School," and "Getting Along with Other People." For the low achieving group, the rank order was: "My Health," "About Me and School," "About Myself," "Getting Along with Other People," and "About Me and My Home."

Out of a total of 223 different items in the SRA Junior Inventory, 163 items, with a frequency of 473 were identified by the high achieving group and 119 items, with a frequency of 234 were identified by the low achieving group.

The correlation between Total Adjustment on the California Test of Personality and Total Mental Factors on the California Test of Mental Maturity for the high achieving group was .71, with a "t" of 3.66 which was significant. Significant correlations were revealed between Personal Adjustment and 1) Logical Reasoning, 2) Verbal Reasoning for the high achieving group. Between Social Adjustment and Verbal Reasoning, a significant relationship was obtained. The correlation obtained between Total Adjustment and Verbal Reasoning was significant.

For the low achieving group, the correlation between Total Adjustment and Total Mental Factors revealed an "r" of -.22m with a "t" of .88 which was insignificant. Correlations obtained between Components on the

California Test of Mental Maturity were insignificant.

The correlation between (Total Problems) SRA Junior Inventory and (Total Adjustment) California Test of Personality for the high achieving group was  $-.75$ , with a "t" of 4.20 which was significant. For the low achieving group, the correlation between Total Problems and Total Adjustment was insignificant.

Relationship obtained between (Total Mental Factors) California Test of Mental Maturity and (Total Problems) SRA Junior Inventory revealed an "r" of  $-.86$ , with a "t" of 6.02 which was significant for the high achieving group. The obtained "r" between Total Mental Factors and Total Problems for the low achieving group showed insignificant relationship.

The difference obtained between the correlations made between (Total Adjustment) California Test of Personality and (Total Problems) SRA Junior Inventory by both groups was significant. There was also a significant difference obtained between the correlations made by both groups between (Total Problems) SRA Junior Inventory and (Total Mental Factors) California Test of Mental Maturity.

Conclusions.— The findings from an analysis and interpretation of the data involved in this research suggested the conclusions which follow:

1. There were fifteen pupils in the low achieving group who were achieving below the local and test norms, and fifteen pupils in the high achieving group achieving above the local and test norms.
2. Overlapping was manifested in many aspects of personality, intelligence, and prevalent problems, indicating quantitative differences in various traits associated with pupils within both groups.
3. The high achieving pupils were more concerned over feelings of

insecurity and home membership, than the low achieving pupils.

4. Both groups were concerned with their health, school relations, and interpersonal relations.
5. The high achieving group was found to be superior to the low achieving group in their adjustment to life situations.
6. The high achieving group was superior to the low achieving group in intelligence.
7. Total problems for both groups appear to suggest that the two groups are equally plagued by the same problems. However, an analysis of individual problem areas revealed that the high achieving group focused more attention upon home membership and feelings of insecurity than the low achieving group.
8. There was a significant positive relationship between intelligence and personality for the high achieving group.
9. There was no significant relationship between personality and intelligence for the low achieving group.
10. An inverse relationship was found between intelligence and prevalent problems for the high achieving group.
11. There was no relationship between intelligence and prevalent problems for the low achieving group.
12. A negative relationship was found between personality adjustment and total number of problems checked by the high achieving group.
13. There was no relationship between personality adjustment and total problems checked by the low achieving group.
14. A significant difference was found between the correlations for both groups between personality adjustment and total problems checked. Correlations for both groups between total problems checked

and intelligence were significant.

Implications.--- The implications stemming from the findings of this research are as follows:

The average intelligence quotient and the low achievement for the low achieving group suggest a need for motivation in the teaching-learning situation, if a reasonable and justified achievement level is to be expected and obtained. The maladjustment manifested by this group may be a contributing factor to their present level of achievement and appears to suggest a need for the school to foster a kind of growth which, through its nature, will lead to personal and social satisfaction.

The attitude of the two groups concerning their health implies a need for the teachers to organize their subject matter for units or topics so as to relate the curriculum to problems experienced by the pupils. It further implies that additional information concerning the health problems of these pupils should be considered and evaluated for possible need of medical attention.

The frequency of problems checked by the high achieving group associated with feelings of insecurity and home membership indicates a need on the part of teachers and parents to cooperate for better understanding of children's problems.

Wide differences between the two groups in intelligence implies a need for attention to be given to activities and experiences of individual pupils within the two groups. The learning experiences should be interesting and geared to the level and capacity of the pupils, so as to maintain interest and incite motivation.

Recommendations.--- The interpretation of the findings together with the implications suggest these recommendations:

The administration of the Atlanta University Laboratory School, Atlanta, Georgia should give serious consideration to the formulation of an array of learning experiences adaptable to the varied levels of abilities within each group. Individual attention should be given to the low achieving pupils, so as to maintain their interest and take advantage of maximum pupil motivation.

Immediate attention should be given to the development of interpersonal relations within the classroom units and in extra-curricula activities for the low achieving pupils. The teacher may encourage these pupils to participate in more group activities of special interest to them.

Objective and efficient techniques should be considered for gathering information about the nature of the needs and problems of these pupils, and the curricular program should be designed to assist the pupils in resolving their problems. Once these problems have been identified, every effort should be made to secure the needed cooperation and increase the efficiency of parents and teachers associated with the school to promote better understanding of these children's problems.

## BIBLIOGRAPHY

### Books

- Anastasi, Anne. Psychological Testing. New York: The Macmillan Co., 1954.
- Buhler, Charlotte, et al. Childhood Problems and the Teacher. New York: The Macmillan Company, 1952.
- Cruze, Wendell. Adolescent Psychology and Development. New York: The Ronald Press Co., 1953.
- \_\_\_\_\_. Educational Psychology. New York: J. Wiley and Sons, Inc., 1950.
- Cole, Lawrence E., et al. Educational Psychology. New York: World Book Company, 1950.
- Erickson, Clifford E. A Basic Text for Guidance Workers. New York: Prentice-Hall, Inc., 1947.
- Garrett, Henry E. Psychology. Atlanta: American Book Company, 1950.
- Garrison, K. C. Psychology of Exceptional Children. New York: The Ronald Press Co., 1950.
- Gates, A., et al. Educational Psychology. New York: The Macmillan Company, 1942.
- Guilford, J. P. Fundamental Statistics in Psychology and Education. New York: McGraw-Hill Co., Inc., 1950.
- Hurlock, Elizabeth. Child Development. New York: McGraw-Hill Co., Inc., 1950.
- Lindquist, E. F. A First Course in Statistics. New York: Houghton Mifflin Co., 1942.
- National Society for the Study of Education. Mental Health in Modern Education. Fifty-fourth Yearbook, Part II, Chicago, Illinois, 1955.
- Sorenson, Herbert. Psychology in Education. New York: McGraw-Hill Co., 1954.
- Stoddard, George D. The Meaning of Intelligence. New York: The Macmillan Co., 1943.
- Stroud, James B. Psychology in Education. New York: Longman Green and Company, 1946.
- Thorndike, E. L. Human Nature and the Social Order. New York: The Macmillan Company, 1940.

Wechsler, David. Range of Human Capacities. Baltimore: The Williams and Wilkins Company, 1952.

#### Articles

Fleming, Edwin G. "The Pleasing Personality of High School Girls as Related to Other Traits and Measures," Journal of Educational Sociology, VI, (May, 1933).

Flory, Charles D., Alden, Elizabeth, and Simmons, Madeline. "Classroom Teachers Improve the Personality Adjustments of Their Pupils," Journal of Educational Research, XXXIX (September, 1944).

Griffith, George R. "The Relationship Between Scholastic Achievement of Men College Students," Journal of Applied Psychology, XXV (October, 1945).

McGhee, William, and Lewis, W. D. "A Comparison of Certain Personality Characteristics of Mentally Superior and Mentally Retarded Children," Journal of Educational Research, XXXI (April, 1942).

Miller, Frances A. "Truancy and Classroom Disorders as Symptoms of Personality Problems," Journal of Educational Psychology, XLI (1950).

Owens, William A., and Johnson, Wilma C. "Some Measured Personality Traits of Collegiate Underachievers," Journal of Educational Psychology, XL (1949).

Pyle, W. H., and Snadden, G. H. "An Experimental Study of Bright and Dull High School Pupils," Journal of Educational Psychology, XX (1935).

Spinelle, Leo. "The Relationship of Personality Scores to School Marks and Intelligence Quotients," Journal of Social Psychology, XX (November, 1944).

Stagner, Ross. "The Relationship of Personality to Academic Aptitude and Achievement," Journal of Educational Research, XXVI (May, 1933).

#### Unpublished Theses

Hanna, Orleans, "A Study of Ten Children With Behavior Problems Enrolled in the Calhoun County Training School, With Emphasis Upon Specific Environmental Factors." Unpublished Master's thesis, Department of Education, Atlanta University, 1950.

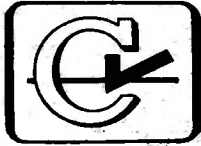
Harris, John, "A Study of the Tested Differences in Intelligence, Achievement, Personality, and Prevalent Problems of Problem and Non-Problem Pupils in the Sixth, Seventh, and Eighth Grades of Carver High School, Dawson, Georgia." Unpublished Master's thesis, Department of Education, Atlanta University, 1954.

Thompson, Onie Cooke, "A Comparative Study of the Eighth and Twelfth Grade Classes in Lancaster Training High School, Lancaster, South Carolina." Unpublished Master's thesis, Department of Education, Atlanta University, 1951.

Waddell, Sarah F., "A Comparative Study of Failing and Non-Failing Pupils of Brown Summit Elementary School, 1949." Unpublished Master's thesis, Department of Education, Atlanta University, 1949.



## **APPENDIX**



Elementary • GRADES 4 - 5 - 6 • form BB

# California Achievement Tests Complete Battery

READING — ARITHMETIC — LANGUAGE

(Formerly Progressive Achievement Tests — Elementary Battery)

DEvised BY ERNEST W. TIEGS AND WILLIS W. CLARK

## Reading

### INSTRUCTIONS TO STUDENTS:

This is a reading test. In taking it you will show how many words you know and how well you understand what you read. No one can do the whole test correctly, but you should answer as many items as you can. Work as fast as you can without making mistakes.

DO NOT WRITE OR MARK ON THIS TEST BOOKLET UNLESS TOLD TO DO SO BY THE EXAMINER.

**DIRECTIONS:** If two words are the same or mean the same, mark S as you are told. If they are different or mean different things, mark D.

		Correct Test Booklet Mark	Correct Answer Sheet Mark
SAMPLE: A.	dog.....dog	dog.....S.....dog	A    S    D        :    :
SAMPLE: B.	boy.....girl	boy.....girl	B    S    D :      :    :

### TEST 1 — SECTION A

1. run.....have
2. fire.....fire
3. mother.....mother
4. boy.....bay
5. chloride.....chloride
6. engrave.....engrave
7. distrust.....district
8. glossary.....gloomy
9. league.....league
10. shriek.....shrub
11. ponder.....poplar
12. whither.....weather
13. forceps.....forceps
14. manipulation.....manifestation
15. interpellation.....interpolation
16. WARRIOR.....WARRIOR
17. PLAINT.....PLAIT
18. PLEASANT.....PLEASANT
19. HEMORRHAGE.....HEMISPHERE
20. subterranean.....SUBTERRANEAN
21. PINK.....PICK
22. THROUGH.....thorough
23. vaccination.....VOCIFERATION
24. straighten.....straighten
25. miraculous.....miraculous

**DIRECTIONS:** Look at the words which are given on the lower part of this page. Each line is numbered and each word has a smaller number, 1, 2, 3, or 4 in front of it. There are four words on each line. The examiner will pronounce one word from each line. You are to mark as you are told the number of the word that is pronounced.

### PRACTICE EXERCISE

		Correct Test Booklet Mark			Correct Answer Sheet Mark
					1 2 3 4
<b>SAMPLE:</b>	<b>C.</b> 1 cow 2 horse 3 dog 4 goat	3 c	<b>C</b>		1 2 3 4
In this sample the word is dog, so the 3 is marked.					
<b>SAMPLE:</b>	<b>D.</b> 1 run 2 jump 3 throw 4 swing	D	<b>D</b>		1 2 3 4
You are to mark the number of the word that was pronounced. It is number 4.					

### TEST 1 — SECTION B

✓ Mark as you have been told the number of the word pronounced.

26. 1 this	2 tree	3 my	4 ball	26
27. 1 grand	2 growl	3 grunt	4 great	27
28. 1 wrath	2 wreck	3 wrist	4 write	28
29. 1 Tuesday	2 Wednesday	3 Thursday	4 Monday	29
30. 1 singeing	2 moulting	3 chattering	4 singing	30
31. 1 June	2 January	3 July	4 August	31
32. 1 thoroughfare	2 throughout	3 through	4 thought	32
33. 1 practice	2 precious	3 prairie	4 practical	33
34. 1 warship	2 watch	3 wanness	4 warrant	34
35. 1 electrocute	2 efficient	3 elimination	4 elasticity	35
36. 1 premium	2 political	3 public	4 primary	36
37. 1 blizzard	2 blight	3 bluster	4 blotch	37
38. 1 associate	2 acquire	3 avenue	4 arrival	38
39. 1 YIELD	2 YOUNG	3 YACHT	4 YAM	39
40. 1 WHARF	2 WHISTLE	3 wholesale	4 whirl	40
41. 1 recipe	2 recital	3 regime	4 receipt	41
42. 1 carnival	2 contagious	3 cautious	4 cafeteria	42
43. 1 MASSACRE	2 menagerie	3 material	4 maximum	43
44. 1 chauffeur	2 chloroform	3 chapeau	4 charlatan	44
45. 1 rheometer	2 pneumonia	3 rheumatics	4 pneumatics	45

**DIRECTIONS:** Mark as you are told the number of the word that means the opposite or about the opposite of the first word.

					Correct Test Booklet Mark	Correct Answer Sheet Mark			
SAMPLE: E. little <sup>1</sup> blue <sup>2</sup> run <sup>3</sup> big <sup>4</sup> rich					<u>3</u> E	E	<u>1</u>	<u>2</u>	<u>3</u>
							<u>1</u>	<u>2</u>	<u>3</u>

### TEST 1 — SECTION C

46. high	<sup>1</sup> crooked	<sup>2</sup> low	<sup>3</sup> lost	<sup>4</sup> end	_____46
47. give	<sup>1</sup> raw	<sup>2</sup> bill	<sup>3</sup> stem	<sup>4</sup> receive	_____47
48. cry	<sup>1</sup> mind	<sup>2</sup> laugh	<sup>3</sup> family	<sup>4</sup> add	_____48
49. strong	<sup>1</sup> brook	<sup>2</sup> that	<sup>3</sup> weak	<sup>4</sup> sugar	_____49
50. sweet	<sup>1</sup> sour	<sup>2</sup> hint	<sup>3</sup> feature	<sup>4</sup> swell	_____50
51. youth	<sup>1</sup> deal	<sup>2</sup> cause	<sup>3</sup> age	<sup>4</sup> arrive	_____51
52. hastily	<sup>1</sup> hate	<sup>2</sup> aid	<sup>3</sup> love	<sup>4</sup> leisurely	_____52
53. safety	<sup>1</sup> danger	<sup>2</sup> alarm	<sup>3</sup> refuse	<sup>4</sup> hate	_____53
54. attack	<sup>1</sup> age	<sup>2</sup> defense	<sup>3</sup> warn	<sup>4</sup> alarm	_____54
55. below	<sup>1</sup> love	<sup>2</sup> cause	<sup>3</sup> above	<sup>4</sup> permit	_____55
56. despair	<sup>1</sup> grocery	<sup>2</sup> demolish	<sup>3</sup> orator	<sup>4</sup> hope	_____56
57. tame	<sup>1</sup> wild	<sup>2</sup> repeat	<sup>3</sup> treat	<sup>4</sup> spot	_____57
58. solid	<sup>1</sup> soldier	<sup>2</sup> liquid	<sup>3</sup> torrid	<sup>4</sup> whistle	_____58
59. east	<sup>1</sup> under	<sup>2</sup> ease	<sup>3</sup> west	<sup>4</sup> best	_____59
60. aloud	<sup>1</sup> bracelet	<sup>2</sup> chirp	<sup>3</sup> almond	<sup>4</sup> silent	_____60
61. dainty	<sup>1</sup> assume	<sup>2</sup> curtain	<sup>3</sup> dairy	<sup>4</sup> coarse	_____61
62. inferior	<sup>1</sup> conquest	<sup>2</sup> invite	<sup>3</sup> ideal	<sup>4</sup> superior	_____62
63. peril	<sup>1</sup> safety	<sup>2</sup> mental	<sup>3</sup> remote	<sup>4</sup> purse	_____63
64. victor	<sup>1</sup> statue	<sup>2</sup> loser	<sup>3</sup> treaty	<sup>4</sup> wallet	_____64
65. sad	<sup>1</sup> mood	<sup>2</sup> vocal	<sup>3</sup> glad	<sup>4</sup> sap	_____65
66. unseen	<sup>1</sup> notice	<sup>2</sup> valor	<sup>3</sup> unsteady	<sup>4</sup> visible	_____66
67. traitor	<sup>1</sup> friend	<sup>2</sup> weasel	<sup>3</sup> young	<sup>4</sup> tragic	_____67
68. expensive	<sup>1</sup> infect	<sup>2</sup> excel	<sup>3</sup> cheap	<sup>4</sup> experiment	_____68

**DIRECTIONS:** Mark as you are told the number of the word that means the same or about the same as the first word.

					Correct Test Booklet Mark	Correct Answer Sheet Mark			
SAMPLE: F. large <sup>1</sup> pretty <sup>2</sup> run <sup>3</sup> big <sup>4</sup> rich					<u>3</u> F	F	<u>1</u>	<u>2</u>	<u>3</u>

### TEST 1 — SECTION D

69. enemy	<sup>1</sup> thicken	<sup>2</sup> weigh	<sup>3</sup> foe	<sup>4</sup> subdue	_____69
70. promise	<sup>1</sup> compact	<sup>2</sup> pure	<sup>3</sup> neutral	<sup>4</sup> lovely	_____70
71. lie	<sup>1</sup> amateur	<sup>2</sup> falsehood	<sup>3</sup> denial	<sup>4</sup> casual	_____71
72. trade	<sup>1</sup> merchant	<sup>2</sup> vein	<sup>3</sup> exchange	<sup>4</sup> ideal	_____72
73. hard	<sup>1</sup> deed	<sup>2</sup> hint	<sup>3</sup> feature	<sup>4</sup> solid	_____73
74. wit	<sup>1</sup> hail	<sup>2</sup> fear	<sup>3</sup> humor	<sup>4</sup> ink	_____74
75. calm	<sup>1</sup> stucco	<sup>2</sup> token	<sup>3</sup> vanity	<sup>4</sup> quiet	_____75
76. industry	<sup>1</sup> business	<sup>2</sup> infantry	<sup>3</sup> repent	<sup>4</sup> outbreak	_____76
77. consent	<sup>1</sup> love	<sup>2</sup> permission	<sup>3</sup> alarm	<sup>4</sup> cause	_____77
78. speech	<sup>1</sup> defend	<sup>2</sup> feast	<sup>3</sup> talk	<sup>4</sup> cure	_____78
79. prophet	<sup>1</sup> mangle	<sup>2</sup> obstruct	<sup>3</sup> pleasant	<sup>4</sup> forecaster	_____79
80. settlement	<sup>1</sup> location	<sup>2</sup> innocent	<sup>3</sup> silent	<sup>4</sup> wise	_____80
81. hush	<sup>1</sup> keen	<sup>2</sup> quiet	<sup>3</sup> mood	<sup>4</sup> hurl	_____81
82. freight	<sup>1</sup> allow	<sup>2</sup> easy	<sup>3</sup> hurl	<sup>4</sup> cargo	_____82
83. physician	<sup>1</sup> doctor	<sup>2</sup> enemy	<sup>3</sup> leisure	<sup>4</sup> ugly	_____83
84. magnificent	<sup>1</sup> purchase	<sup>2</sup> magician	<sup>3</sup> impressive	<sup>4</sup> stationary	_____84
85. abolish	<sup>1</sup> ocean	<sup>2</sup> cry	<sup>3</sup> destroy	<sup>4</sup> high	_____85
86. plenty	<sup>1</sup> wonder	<sup>2</sup> stem	<sup>3</sup> friend	<sup>4</sup> sufficient	_____86
87. tray	<sup>1</sup> container	<sup>2</sup> land	<sup>3</sup> brook	<sup>4</sup> expect	_____87
88. amuse	<sup>1</sup> fertile	<sup>2</sup> entertain	<sup>3</sup> doubt	<sup>4</sup> amount	_____88
89. hatred	<sup>1</sup> haul	<sup>2</sup> nurse	<sup>3</sup> pedal	<sup>4</sup> enmity	_____89
90. lecture	<sup>1</sup> pulpit	<sup>2</sup> rigor	<sup>3</sup> sermon	<sup>4</sup> ledge	_____90

**DIRECTIONS:** Read the following directions. Mark as you are told the number or letter of each correct answer.

## TEST 2 — SECTION E

91. By crossing out two letters you can make **count** out of the word, **country**. Mark the number of the two letters which would be crossed out.

<sup>1</sup> ry    <sup>2</sup> ct    <sup>3</sup> nu    <sup>4</sup> cy    \_\_\_\_\_91

92. Find the name of the largest animal and mark its number.

<sup>1</sup> dog    <sup>2</sup> rat    <sup>3</sup> cow    <sup>4</sup> sheep    \_\_\_\_\_92

93. Some of the Roman numerals and their values are:

IX=9    XIX=19  
XX=20    XXI=21

Mark the letter of the Roman numeral for 20.

<sup>a</sup> XIX    <sup>b</sup> XX    <sup>c</sup> IX    <sup>d</sup> XXI    \_\_\_\_\_93

94. Mark the number of the seventh word in this sentence.

<sup>1</sup> third    <sup>2</sup> word    <sup>3</sup> the    <sup>4</sup> in    \_\_\_\_\_94

95. Mark the letter which must be added to **hors** to make **horse**.

<sup>i</sup>    <sup>a</sup>    <sup>s</sup>    <sup>e</sup>    \_\_\_\_\_95

96. Mark the sixth letter of the last word in this sentence.

e    a    n    r    t    \_\_\_\_\_96

97. Read the following names:

Marie Arthur Richard Mary

Mark the number which shows the first letter of the girls' names.

<sup>1</sup> A    <sup>2</sup> M    <sup>3</sup> R    \_\_\_\_\_97

98. Read these numbers:

6 3 4 8 5 2 1 9 0

Mark the letter of the third number to the right of 8.

<sup>a</sup> 1    <sup>b</sup> 9    <sup>c</sup> 6    <sup>d</sup> 3    \_\_\_\_\_98

99. When two words are spoken as one, the shortened form is a contraction. The apostrophe denotes the missing letter; such as **can not**, **can't**. Mark the number of the word meaning **do not** in the form of a contraction.

<sup>1</sup> can't    <sup>2</sup> do not  
<sup>3</sup> doesn't    <sup>4</sup> don't    \_\_\_\_\_99

100. The suffix *ness* is used to form nouns meaning state or quality of being; such as sick, sickness. Mark the number of the word which has the suffix *ness* added to the word, white.

<sup>1</sup> sickness    <sup>2</sup> ness  
<sup>3</sup> whiteness    <sup>4</sup> white    \_\_\_\_\_100

**STOP**

NOW WAIT FOR  
FURTHER INSTRUCTIONS

**DIRECTIONS:** Read the following directions. Mark as you are told the number or letter of each correct answer.

## TEST 2 — SECTION F

101. The preface is found in what part of a book?

1 beginning 2 middle 3 end \_\_\_\_\_101

102. The index is found in what part of a book?

1 beginning 2 middle 3 end \_\_\_\_\_102

✓ Read this list of words:

yard	pail
jar	bird
help	king
quiet	ripe

If the above words were arranged alphabetically,

103. help would come next after

1 bird 2 king 3 yard \_\_\_\_\_103

104. pail would come next after

1 quiet 2 jar 3 king \_\_\_\_\_104

✓ Look at the following and find the answers to items 105, 106, and 107.

### Table of Contents

Chapter	Page
1. How Man Conquered the Wilderness	1
2. Poultry and Eggs.....	19
3. Transportation .....	43
4. Why We Need Food.....	50
5. The Nations of the Earth.....	71
6. Communication .....	88
7. Why the World Works.....	100

105. Mark the letter of the page which shows where "Transportation" begins.

a 1 b 19 c 43 d 50 \_\_\_\_\_105

106. Mark the number which shows what story begins on page 88.

1 Poultry and Eggs  
2 Communication  
3 Transportation \_\_\_\_\_106

107. Mark the number which shows to which chapter the material on page 38 belongs.

1 2 3 4 5 \_\_\_\_\_107

✓ Look at this partial index and find the answers to items 108, 109, and 110.

### INDEX

Ohio River, 134.

Oil: In Iraq, 383; in Manchuria, 400; in Persia, 382; in plains, 56; in Rumania, 329; in Trans-Caucasian Regions, 377; in Yugoslavia, 331.

Oil cakes, what they are, 27.

Oil seeds, in British East Africa, 355.

Oklahoma: cattle in, 141; chief city of, 147; climate of, 132; cotton in, 137; oil in, 141; physical features of, 135; rank of, in agriculture, 140; wheat in, 157.

Olive pressing, in Albania, 333.

Olives: in Africa, 349; in Anatolia, 376; in California, 190; in Greece, 332; in Italy, 337.

108. Mark the letter which shows on what page information about the Ohio River will be found.

a 8 b 134 c 7 d 337 \_\_\_\_\_108

109. Mark the letter which shows on what page information concerning oil in Rumania will be found.

a 383 b 400 c 329 d 331 \_\_\_\_\_109

110. Mark the letter which shows on what page information concerning the physical features of Oklahoma will be found.

a 141 b 147 c 157 d 135 \_\_\_\_\_110

**STOP**

NOW WAIT FOR  
FURTHER INSTRUCTIONS



## TEST 2 — SECTION G

✓ Read this story:

Camels live most of the time on the desert. They have padded feet, nostrils that can be closed in a storm, and thick bushy eyebrows and lashes which protect their eyes. Their stomachs and humps are made up of cells which store their water and food for future use on their long journeys through the desert wastes. They are the principal means of transportation on the Sahara Desert.

✓ Mark as you have been told the number of each correct answer. You may look back to find the answers.

111. The best title for the above story is  
<sup>1</sup> Domestic Animals  
<sup>2</sup> The Camel <sup>3</sup> The Desert \_\_\_\_\_111
112. Camels are useful  
<sup>1</sup> in large cities <sup>2</sup> as food  
<sup>3</sup> in transportation \_\_\_\_\_112
113. The stomach and hump are made up of  
<sup>1</sup> fur <sup>2</sup> cells <sup>3</sup> pads \_\_\_\_\_113
114. The camel eats  
<sup>1</sup> irregularly <sup>2</sup> regularly  
<sup>3</sup> rarely \_\_\_\_\_114
115. The camel is  
<sup>1</sup> wild <sup>2</sup> useless <sup>3</sup> useful \_\_\_\_\_115
116. His home is in the  
<sup>1</sup> desert <sup>2</sup> jungles <sup>3</sup> mountains \_\_\_\_\_116

✓ Read this story:

One of the large countries in North America is Canada.

Canada has an irregular coast line with many fine harbors. It is lacking in large ports because of the ice-bound harbors in the winter, and this is a serious handicap to the development of trade. During the warm summer season, important agricultural products are grown.

Canada is rich in natural resources, but the population is still small. There are vast areas of valuable forests; the many fur-bearing animals are a source of great revenue, and the streams have unlimited possibilities for the development of power.

✓ Mark the number of each correct answer. You may look back to find the answers.

117. The above story is about  
<sup>1</sup> North America <sup>2</sup> Canada  
<sup>3</sup> large countries \_\_\_\_\_117
118. They have  
<sup>1</sup> few natural resources  
<sup>2</sup> many large ports  
<sup>3</sup> fine harbors \_\_\_\_\_118
119. A serious handicap is  
<sup>1</sup> over-production  
<sup>2</sup> ice-bound harbors  
<sup>3</sup> a lack of streams \_\_\_\_\_119
120. The climate of Canada is  
<sup>1</sup> changeable <sup>2</sup> very dry  
<sup>3</sup> equatorial \_\_\_\_\_120
121. Choose the best statement:  
<sup>1</sup> Canada has few natural resources  
<sup>2</sup> The cotton is profitable in Canada  
<sup>3</sup> Canada has many unsettled areas \_\_\_\_\_121

## TEST 2 — SECTION G (Continued)

✓ Read this story:

### The Telephone

The telephone is a device for transmitting speech by means of electricity. The first patent for this instrument was granted to Alexander Graham Bell on March 7, 1876.

Since the original invention there have been many improvements in the mechanical features of telephones. Submarine cables have been laid across the ocean to permit communication between countries, and many overhead wires have been removed by running the wires through conduits under ground. As a result of a large amount of experimentation, we can now communicate by wireless telephone.

The principal achievement of the telephone is that of abridging space. By this means of communication, business transactions and conversations are more quickly completed and trade and commerce have been greatly stimulated. Thus we see that telephones have been a definite aid in the progress of our nation.

✓ Mark the number of each correct answer. You may look back to find the answers.

122. Alexander Graham Bell was  
 1 an artist      2 an inventor  
 3 a navigator    4 a naturalist \_\_\_\_\_122

123. Conduits have been used to remove  
 1 submarine cables    2 commerce  
 3 overhead wires  
 4 business transactions \_\_\_\_\_123

✓ Read the six titles below. You are to select the one that would make the best title for each of the three paragraphs of the story.

### Titles

1. March 7, 1876
2. Invention of the Telephone
3. Improvements and Developments
4. Mechanical Features
5. Effects of the Invention
6. Trade and Commerce

124. The best title for the first paragraph is number  
 1      2      3      4      5      \_\_\_\_\_124

125. The best title for the second paragraph is number  
 2      3      4      5      6      \_\_\_\_\_125

126. The best title for the third paragraph is number  
 2      3      4      5      6      \_\_\_\_\_126

The following things are mentioned in the story:

Removing overhead wires  
 Granting the patent  
 Wireless telephone  
 Improving the telephone

The order in which the above things were mentioned in the story is as follows:

127. Improving the telephone was  
 1st      2nd      3rd      4th      \_\_\_\_\_127

128. Removing overhead wires was  
 1st      2nd      3rd      4th      \_\_\_\_\_128

129. Wireless telephone was  
 1st      2nd      3rd      4th      \_\_\_\_\_129

130. Granting the patent was  
 1st      2nd      3rd      4th      \_\_\_\_\_130

**STOP**

NOW WAIT FOR  
FURTHER INSTRUCTIONS

## Arithmetic

### INSTRUCTIONS TO STUDENTS:

This is an arithmetic test. In taking it you will show how well you can think and work problems. No one is expected to do the whole test correctly, but you should answer as many items as you can. Work as fast as you can without making mistakes.

DO NOT WRITE OR MARK ON THIS TEST BOOKLET UNLESS TOLD TO DO SO BY THE EXAMINER.

Do not write, mark, or figure on this test booklet unless told to do so by the examiner.

**DIRECTIONS:** Decide how each of the amounts below should be written as a number. Then mark as you are told the letter of each correct answer. For some of the problems none of the answers given may be correct. If you cannot mark a problem, or if you think that none of the answers given is correct, mark the letter, e. In doing this test you should finish the first column before doing the second. Look at the samples to the right and see how they are marked.

Sample A: Twelve	a 10 b 12 c 11 d 2 e None	Correct Answer Sheet Mark
		A <input type="checkbox"/> a <input type="checkbox"/> b <input type="checkbox"/> c <input type="checkbox"/> d <input type="checkbox"/> e
Sample B: Twenty	a 22 b 200 c 2 d 21 e None	Correct Test Booklet Mark
		b A
		Correct Answer Sheet Mark
		B <input type="checkbox"/> a <input type="checkbox"/> b <input type="checkbox"/> c <input type="checkbox"/> d <input type="checkbox"/> e
		Correct Test Booklet Mark
		e B

### TEST 3 — SECTION A

1. Thirty-four      a 43  
b .034  
c 34  
d 340  
e None      (1)
2. One hundred eleven      a 100,11  
b 1101  
c 1011  
d 111,00  
e None      (2)
3. Nine hundred fifty-two      a 952  
b 900,52  
c 9052  
d 952,00  
e None      (3)
4. Three hundred four      a 300,4  
b 3400  
c 304  
d 304,0  
e None      (4)
5. Two thousand six      a 2000,6  
b 2,6000  
c 206  
d 2006  
e None      (5)
6. Two dollars and two cents      a \$2.2¢  
b \$2.02  
c \$2.2  
d 2.02  
e None      (6)
7. Sixty dollars and nine cents      a \$60.9  
b \$60.9¢  
c 60.09  
d \$60.09  
e None      (7)

✓ Read these Roman numerals. Then mark as you have been told the letter of each correct answer.

8. IV means      a 2  
b 4  
c 6  
d 8  
e None      (8)

9. XXX means      a 25  
b 29  
c 30  
d 31  
e None      (9)

10. M means      a 1000  
b 4000  
c 5000  
d 7000  
e None      (10)

✓ Find the smallest number, marked a, b, c, or d, in each of the following rows. Then mark its letter.

11.      a 321      b 226      c 128      d 190      \_\_\_\_\_ 11
12.      a  $\frac{1}{2}$       b  $\frac{1}{4}$       c  $\frac{2}{3}$       d  $\frac{3}{4}$       \_\_\_\_\_ 12
13.      a 20.01      b 21.3      c 2.0671      d 5.361      \_\_\_\_\_ 13
14.      a  $\frac{1}{2}$       b .25      c .62 $\frac{1}{2}$       d  $\frac{5}{8}$       \_\_\_\_\_ 14
15.      a  $\frac{1}{3}$       b 75%      c  $\frac{2}{3}$       d  $\frac{3}{4}$       \_\_\_\_\_ 15

**STOP**

NOW WAIT FOR FURTHER INSTRUCTIONS

Sec. A Score (number right).....

**DIRECTIONS:** Mark the letter or number of each correct answer. If you do not know an answer, or you think that none of the answers given is correct, you should mark the letter, e (items 16-19), or the number, 5 (items 20-30). Finish the first column before doing the second. Remember to do your figuring on scratch paper if you are marking your answers on an answer sheet.

**TEST 3 — SECTION B**

16. $5 \times 8 =$	<sup>a</sup> 13 <sup>b</sup> 40 <sup>c</sup> $\frac{5}{8}$ <sup>d</sup> $\frac{8}{5}$ <sup>e</sup> None	<div style="text-align: right;">(16)</div>	24. $\phi$ means	<sup>1</sup> nickel <sup>2</sup> quarter <sup>3</sup> dime <sup>4</sup> dollar <sup>5</sup> None	<div style="text-align: right;">(24)</div>
17. $9 \div 3 =$	<sup>a</sup> 3 <sup>b</sup> 27 <sup>c</sup> $\frac{1}{3}$ <sup>d</sup> 6 <sup>e</sup> None	<div style="text-align: right;">(17)</div>	25. oz. means	<sup>1</sup> hour <sup>2</sup> inch <sup>3</sup> ounce <sup>4</sup> root <sup>5</sup> None	<div style="text-align: right;">(25)</div>
18. $18 + 2 =$	<sup>a</sup> 0 <sup>b</sup> 1 <sup>c</sup> 10 <sup>d</sup> 25 <sup>e</sup> None	<div style="text-align: right;">(18)</div>	26. % means	<sup>1</sup> degree <sup>2</sup> per cent <sup>3</sup> inch <sup>4</sup> ratio <sup>5</sup> None	<div style="text-align: right;">(26)</div>
19. $20 - 4 =$	<sup>a</sup> 5 <sup>b</sup> $\frac{1}{5}$ <sup>c</sup> 80 <sup>d</sup> 16 <sup>e</sup> None	<div style="text-align: right;">(19)</div>	27. $\pi$ means	<sup>1</sup> pi <sup>2</sup> degree <sup>3</sup> root <sup>4</sup> part <sup>5</sup> None	<div style="text-align: right;">(27)</div>
20. $\div$ means	<sup>1</sup> add <sup>2</sup> subtract <sup>3</sup> multiply <sup>4</sup> divide <sup>5</sup> None	<div style="text-align: right;">(20)</div>	28. sec. means	<sup>1</sup> foot <sup>2</sup> part <sup>3</sup> second <sup>4</sup> ratio <sup>5</sup> None	<div style="text-align: right;">(28)</div>
21. $+$ means	<sup>1</sup> add <sup>2</sup> subtract <sup>3</sup> multiply <sup>4</sup> divide <sup>5</sup> None	<div style="text-align: right;">(21)</div>	29. " means	<sup>1</sup> angle <sup>2</sup> part <sup>3</sup> at <sup>4</sup> inch <sup>5</sup> None	<div style="text-align: right;">(29)</div>
22. $-$ means	<sup>1</sup> add <sup>2</sup> subtract <sup>3</sup> multiply <sup>4</sup> divide <sup>5</sup> None	<div style="text-align: right;">(22)</div>	30. $\sqrt{\quad}$ means	<sup>1</sup> care of <sup>2</sup> less than <sup>3</sup> square root <sup>4</sup> right angle <sup>5</sup> None	<div style="text-align: right;">(30)</div>
23. $\times$ means	<sup>1</sup> add <sup>2</sup> subtract <sup>3</sup> multiply <sup>4</sup> divide <sup>5</sup> None	<div style="text-align: right;">(23)</div>			

**STOP**

NOW WAIT FOR  
FURTHER INSTRUCTIONS

Sec. B Score  
(number right) .....

**DIRECTIONS:** Work these problems. Then mark as you have been told the letter of each correct answer. For some of the problems none of the answers given may be correct. If you cannot work a problem, or if you think none of the answers given is correct, you should mark the letter, e. Remember to do your figuring on scratch paper if you are marking your answers on an answer sheet.

**TEST 3 — SECTION C**

- |  |   |      |
|--|---|------|
| 31. Nan has 5 pieces of candy. Fred has 10 pieces of candy. How many pieces have they together?  | a 5<br>b 15<br>c 50<br>d $7\frac{1}{2}$<br>e None | (31) |
| <hr/>  |   |      |
| 32. A farmer had 14 cows. He sold four of them. How many cows did he have left?  | a 18<br>b 4<br>c 9<br>d 56<br>e None              | (32) |
| <hr/>  |   |      |
| 33. Ann has 2 dolls. Sally has three times as many. How many dolls does Sally have?  | a 6<br>b 8<br>c 3<br>d 4<br>e None                | (33) |
| <hr/>  |   |      |
| 34. Jane had 9 apples and she divided them equally among two other girls and herself. How many apples did each receive?  | a 9<br>b 6<br>c 27<br>d 3<br>e None               | (34) |
| <hr/>  |   |      |
| 35. One dish contained 12 cookies and another contained eighteen. The children ate six of the cookies. How many were left?   | a 0<br>b 24<br>c 30<br>d 12<br>e None             | (35) |
| <hr/>  |   |      |
| 36. A classroom had 6 rows of desks with 7 desks in each row. Five desks were moved from the room. How many desks were left?                                       | a 37<br>b 13<br>c 42<br>d 8<br>e None             | (36) |
| <hr/>  |   |      |
| 37. Mr. Smith had 100 chickens and sold 40. He gave all the others to his four children, giving the same number to each. How many chickens did each child receive? | a 60<br>b 15<br>c 35<br>d 10<br>e None            | (37) |

# TEST 3 — SECTION C (Continued)

- |  |  |  |
|--|--|--|
| 38. Mary weighs 85 pounds, Ruth weighs 65 pounds, and Ethel weighs 90 pounds. What is their average weight in pounds?  | <ul style="list-style-type: none"> <li>a 85</li> <li>b <math>82\frac{1}{2}</math></li> <li>c <math>83\frac{1}{3}</math></li> <li>d 80</li> <li>e None</li> </ul> | <div style="border-top: 1px solid black; width: 50px; margin: 0 auto;"></div> (38) |
| <hr/>  |  |  |
| 39. How many square inches in a piece of glass 15 inches wide and 20 inches long?  | <ul style="list-style-type: none"> <li>a 35</li> <li>b 200</li> <li>c 300</li> <li>d 150</li> <li>e None</li> </ul>  | <div style="border-top: 1px solid black; width: 50px; margin: 0 auto;"></div> (39) |
| <hr/>  |  |  |
| 40. How many one-inch squares can be placed in the bottom of a box 3 inches wide, 6 inches deep, and 10 inches long?   | <ul style="list-style-type: none"> <li>a 19</li> <li>b 90</li> <li>c 60</li> <li>d 30</li> <li>e None</li> </ul>   | <div style="border-top: 1px solid black; width: 50px; margin: 0 auto;"></div> (40) |
| <hr/>  |  |  |
| 41. In a candy sale, four-fifths of a class brought bags of taffy to school. There were 45 pupils in the class. How many pupils brought taffy?                           | <ul style="list-style-type: none"> <li>a 36</li> <li>b 9</li> <li>c <math>\frac{4}{5}</math></li> <li>d 40</li> <li>e None</li> </ul>                            | <div style="border-top: 1px solid black; width: 50px; margin: 0 auto;"></div> (41) |
| <hr/>  |  |  |
| 42. Mary paid \$1.75 for a new book, 30 cents for lunch, and 20 cents for carfare. She spent the amount left out of \$5.00 for a new dress. How much did the dress cost? | <ul style="list-style-type: none"> <li>a \$2.25</li> <li>b \$5.00</li> <li>c \$2.75</li> <li>d \$3.25</li> <li>e None</li> </ul>                                 | <div style="border-top: 1px solid black; width: 50px; margin: 0 auto;"></div> (42) |
| <hr/>  |  |  |
| 43. Our team has played 12 games and lost three of them. What per cent of the games did we lose?   | <ul style="list-style-type: none"> <li>a 25</li> <li>b <math>33\frac{1}{3}</math></li> <li>c 50</li> <li>d <math>\frac{1}{4}</math></li> <li>e None</li> </ul>   | <div style="border-top: 1px solid black; width: 50px; margin: 0 auto;"></div> (43) |
| <hr/>  |  |  |
| 44. The bank received seven per cent interest on a loan of \$300.00 for one year. How much interest was received?  | <ul style="list-style-type: none"> <li>a \$7</li> <li>b \$10</li> <li>c \$21</li> <li>d 30</li> <li>e None</li> </ul>  | <div style="border-top: 1px solid black; width: 50px; margin: 0 auto;"></div> (44) |
| <hr/>  |  |  |
| 45. On a map $\frac{1}{4}$ inch is used to represent 10 miles. The distance between two cities on the map is 2 inches. How many miles are they apart?                    | <ul style="list-style-type: none"> <li>a 20</li> <li>b 40</li> <li>c 60</li> <li>d 80</li> <li>e None</li> </ul>   | <div style="border-top: 1px solid black; width: 50px; margin: 0 auto;"></div> (45) |

**DIRECTIONS:** Do these problems in addition. Then mark as you have been told the letter of each correct answer. For some of the problems none of the answers given may be correct. If you cannot work a problem, or if you think none of the answers given is correct, you should mark the letter, e. Finish each column before going on to the next. Be sure to reduce fractions to lowest terms. Remember to do your figuring on scratch paper if you are marking your answers on an answer sheet.

### TEST 4 — SECTION D

<p>(46)</p> $\begin{array}{r} 41 \\ + 32 \\ \hline \end{array}$ <p>a 10 b 73 c 55 d 9 e None _____</p> <p>(46)</p>	<p>(53)</p> $\begin{array}{r} \$ 34.24 \\ 8.65 \\ .55 \\ + 4.26 \\ \hline \end{array}$ <p>a \$47.60 b \$48.70 c \$47.70 d \$37.70 e None _____</p> <p>(53)</p>	<p>(60)</p> $\begin{array}{r} 5\frac{3}{4} \\ + 3\frac{2}{3} \\ \hline \end{array}$ <p>a <math>9\frac{1}{2}</math> b <math>8\frac{5}{12}</math> c <math>8\frac{5}{7}</math> d <math>9\frac{5}{12}</math> e None _____</p> <p>(60)</p>
<p>(47)</p> $\begin{array}{r} 40 \\ + 26 \\ \hline \end{array}$ <p>a 120 b 12 c 66 d 660 e None _____</p> <p>(47)</p>	<p>(54)</p> $\$5.00 + \$6.00 + \$12 + \$2.40 =$ <p>a \$8.12 b \$20.00 c \$31.70 d \$19.00 e None _____</p> <p>(54)</p>	<p>(61)</p> $\begin{array}{r} 33\frac{1}{4} \\ 12\frac{1}{2} \\ + 21\frac{2}{3} \\ \hline \end{array}$ <p>a <math>67\frac{1}{8}</math> b <math>67\frac{1}{8}</math> c <math>67\frac{5}{12}</math> d <math>66\frac{5}{12}</math> e None _____</p> <p>(61)</p>
<p>(48)</p> $\begin{array}{r} 409 \\ + 520 \\ \hline \end{array}$ <p>a 929 b 20 c 90290 d 713 e None _____</p> <p>(48)</p>	<p>(55)</p> $\begin{array}{r} \frac{1}{2} \\ + \frac{1}{2} \\ \hline \end{array}$ <p>a 24 b <math>\frac{1}{4}</math> c 0 d 1 e None _____</p> <p>(55)</p>	<p>(62)</p> $3\frac{1}{2} + 6.25 =$ <p>a <math>9\frac{1}{2}.25</math> b 10 c <math>6.28\frac{1}{2}</math> d 9.75 e None _____</p> <p>(62)</p>
<p>(49)</p> $\begin{array}{r} 57 \\ + 6 \\ \hline \end{array}$ <p>a 51 b 342 c 513 d 63 e None _____</p> <p>(49)</p>	<p>(56)</p> $\begin{array}{r} \frac{1}{3} \\ + \frac{1}{6} \\ \hline \end{array}$ <p>a <math>\frac{1}{9}</math> b <math>\frac{1}{18}</math> c <math>\frac{1}{2}</math> d <math>\frac{2}{9}</math> e None _____</p> <p>(56)</p>	<p>(63)</p> $.04 + .261 + .3108 =$ <p>a .3373 b .6118 c .9718 d .5118 e None _____</p> <p>(63)</p>
<p>(50)</p> $\begin{array}{r} 34 \\ + 18 \\ \hline \end{array}$ <p>a 412 b 52 c 17 d 42 e None _____</p> <p>(50)</p>	<p>(57)</p> $\begin{array}{r} 24 \\ + 3\frac{2}{3} \\ \hline \end{array}$ <p>a <math>27\frac{2}{3}</math> b <math>27\frac{2}{3}</math> c <math>26\frac{1}{3}</math> d <math>20\frac{1}{3}</math> e None _____</p> <p>(57)</p>	<p>(64)</p> $32.4 + 2.53 + .0627 + 4 =$ <p>a 1207 b 39.0927 c 38.9927 d 1604 e None _____</p> <p>(64)</p>
<p>(51)</p> $\begin{array}{r} 266 \\ + 158 \\ \hline \end{array}$ <p>a 51313 b 653 c 633 d 543 e None _____</p> <p>(51)</p>	<p>(58)</p> $\begin{array}{r} 3\frac{3}{4} \\ + 3\frac{1}{8} \\ \hline \end{array}$ <p>a <math>3\frac{3}{4}</math> b <math>3\frac{3}{8}</math> c <math>3\frac{5}{12}</math> d <math>3\frac{1}{8}</math> e None _____</p> <p>(58)</p>	<p>(65)</p> $\begin{array}{r} 1 \text{ ft. } 10 \text{ in.} \\ + 1 \text{ ft. } 6 \text{ in.} \\ \hline \end{array}$ <p>a 3 ft. 4 in. b 2 ft. 4 in. c 2 ft. 16 in. d 3 ft. 6 in. e None _____</p> <p>(65)</p>
<p>(52)</p> $\begin{array}{r} 2317 \\ 6894 \\ 5134 \\ + 6020 \\ \hline \end{array}$ <p>a 19255 b 20355 c 19365 d 20365 e None _____</p> <p>(52)</p>	<p>(59)</p> $\begin{array}{r} 21\frac{1}{3} \\ + 4\frac{1}{4} \\ \hline \end{array}$ <p>a <math>25\frac{7}{12}</math> b <math>25\frac{1}{12}</math> c <math>25\frac{1}{7}</math> d <math>25\frac{7}{4}</math> e None _____</p> <p>(59)</p>	

**STOP** NOW WAIT FOR FURTHER INSTRUCTIONS



**DIRECTIONS:** Do these problems in subtraction. Then mark as you have been told the letter of each correct answer. For some of the problems none of the answers given may be correct. If you cannot work a problem, or if you think none of the answers given is correct, you should mark the letter, e. Finish each column before going on to the next. Be sure to reduce fractions to lowest terms.

**TEST 4 — SECTION E**

<p>(66)</p> $\begin{array}{r} 46 \\ -32 \\ \hline \end{array}$ <p>a 78 b 4 c 14 d 18 e None _____ (66)</p>	<p>(73)</p> $\begin{array}{r} \$24.00 \\ -2.75 \\ \hline \end{array}$ <p>a \$26.75 b \$22.35 c \$22.25 d \$21.25 e None _____ (73)</p>	<p>(80)</p> $\begin{array}{r} 9 \\ -5\frac{1}{2} \\ \hline \end{array}$ <p>a <math>3\frac{1}{2}</math> b <math>13\frac{1}{2}</math> c <math>4\frac{1}{2}</math> d <math>5\frac{1}{2}</math> e None _____ (80)</p>
<p>(67)</p> $\begin{array}{r} 45 \\ -3 \\ \hline \end{array}$ <p>a 32 b 2 c 48 d 42 e None _____ (67)</p>	<p>(74)</p> $\$56 - \$12.75 =$ <p>a \$68.75 b \$43.25 c \$33.25 d \$56.75 e None _____ (74)</p>	<p>(81)</p> $\begin{array}{r} 35\frac{1}{8} \\ -12\frac{2}{3} \\ \hline \end{array}$ <p>a <math>23\frac{2}{3}</math> b <math>22\frac{2}{3}</math> c <math>22\frac{1}{3}</math> d <math>22\frac{1}{2}</math> e None _____ (81)</p>
<p>(68)</p> $\begin{array}{r} 398 \\ -203 \\ \hline \end{array}$ <p>a 195 b 601 c 95 d 185 e None _____ (68)</p>	<p>(75)</p> $\begin{array}{r} \frac{1}{4} \\ -\frac{1}{4} \\ \hline \end{array}$ <p>a 0 b <math>\frac{1}{8}</math> c <math>\frac{1}{2}</math> d <math>\frac{1}{4}</math> e None _____ (75)</p>	<p>(82)</p> $50.8 - 6\frac{1}{2} =$ <p>a 44.3 b <math>44.8\frac{1}{2}</math> c 43.3 d <math>56.8\frac{1}{2}</math> e None _____ (82)</p>
<p>(69)</p> $\begin{array}{r} 470 \\ -230 \\ \hline \end{array}$ <p>a 2400 b 240 c 140 d 230 e None _____ (69)</p>	<p>(76)</p> $\begin{array}{r} \frac{3}{5} \\ -\frac{1}{5} \\ \hline \end{array}$ <p>a <math>\frac{4}{5}</math> b <math>\frac{1}{5}</math> c <math>\frac{2}{5}</math> d 2 e None _____ (76)</p>	<p>(83)</p> $75.460 - 33.16 =$ <p>a 72.144 b 43.2 c 42.3 d 41.30 e None _____ (83)</p>
<p>(70)</p> $\begin{array}{r} 45 \\ -18 \\ \hline \end{array}$ <p>a 37 b 27 c 63 d 33 e None _____ (70)</p>	<p>(77)</p> $\begin{array}{r} \frac{5}{6} \\ -\frac{1}{3} \\ \hline \end{array}$ <p>a <math>\frac{4}{3}</math> b <math>\frac{2}{3}</math> c <math>1\frac{1}{3}</math> d <math>\frac{1}{2}</math> e None _____ (77)</p>	<p>(84)</p> $45.05 - 5.0379 =$ <p>a 45.874 b 54.126 c 40.0121 d 40.0231 e None _____ (84)</p>
<p>(71)</p> $\begin{array}{r} 357 \\ -298 \\ \hline \end{array}$ <p>a 189 b 99 c 179 d 69 e None _____ (71)</p>	<p>(78)</p> $\begin{array}{r} \frac{3}{4} \\ -\frac{1}{3} \\ \hline \end{array}$ <p>a 2 b <math>\frac{1}{3}</math> c <math>\frac{5}{12}</math> d <math>\frac{1}{6}</math> e None _____ (78)</p>	<p>(85)</p> $\begin{array}{r} 8\text{ ft. } 5\text{ in.} \\ -5\text{ ft. } 10\text{ in.} \\ \hline \end{array}$ <p>a 14 ft. 3 in. b 2 ft. 7 in. c 3 ft. 7 in. d 2 ft. 5 in. e None _____ (85)</p>
<p>(72)</p> $\begin{array}{r} 3703 \\ -1567 \\ \hline \end{array}$ <p>a 2246 b 2236 c 2136 d 2146 e None _____ (72)</p>	<p>(79)</p> $\begin{array}{r} 5\frac{1}{4} \\ -4 \\ \hline \end{array}$ <p>a <math>2\frac{1}{4}</math> b <math>9\frac{1}{4}</math> c <math>\frac{1}{4}</math> d <math>1\frac{1}{4}</math> e None _____ (79)</p>	

**STOP** NOW WAIT FOR FURTHER INSTRUCTIONS

**DIRECTIONS:** Do these problems in multiplication. Then mark as you have been told the letter of each correct answer. Finish each column before going on to the next. Be sure to reduce fractions to lowest terms.

**TEST 4 — SECTION F**

<p>(86)</p> $\begin{array}{r} 432 \\ \times 2 \\ \hline \end{array}$ <p>a 434 b 430 c 864 d 664 e None</p> <p>(86)</p>	<p>(93)</p> $\begin{array}{r} 500 \\ \times 300 \\ \hline \end{array}$ <p>a 1500 b 15000 c 150000 d 80000 e None</p> <p>(93)</p>	<p>(100)</p> $7\frac{3}{4} \times \frac{3}{5} =$ <p>a <math>\frac{12}{155}</math> b <math>41\frac{1}{20}</math> c <math>7\frac{9}{20}</math> d <math>41\frac{13}{20}</math> e None</p> <p>(100)</p>
<p>(87)</p> $\begin{array}{r} 500 \\ \times 3 \\ \hline \end{array}$ <p>a 503 b 150 c 497 d 1500 e None</p> <p>(87)</p>	<p>(94)</p> $\begin{array}{r} 3045 \\ \times 504 \\ \hline \end{array}$ <p>a 1534680 b 164430 c 15237180 d 3549 e None</p> <p>(94)</p>	<p>(101)</p> $5\frac{1}{2} \times 7\frac{3}{5} =$ <p>a <math>\frac{55}{76}</math> b <math>41\frac{1}{5}</math> c <math>35\frac{3}{10}</math> d <math>121\frac{1}{55}</math> e None</p> <p>(101)</p>
<p>(88)</p> $\begin{array}{r} 42 \\ \times 4 \\ \hline \end{array}$ <p>a 168 b 46 c 166 d 38 e None</p> <p>(88)</p>	<p>(95)</p> $4 \times \frac{1}{2} =$ <p>a <math>2\frac{1}{2}</math> b 8 c <math>\frac{1}{8}</math> d 2 e None</p> <p>(95)</p>	<p>(102)</p> $\begin{array}{r} 45\frac{4}{5} \\ \times 25 \\ \hline \end{array}$ <p>a 1145 b <math>70\frac{4}{5}</math> c <math>1125\frac{4}{5}</math> d <math>1156\frac{1}{4}</math> e None</p> <p>(102)</p>
<p>(89)</p> $\begin{array}{r} 45 \\ \times 5 \\ \hline \end{array}$ <p>a 2025 b 50 c 225 d 40 e None</p> <p>(89)</p>	<p>(96)</p> $\frac{1}{4} \times \frac{1}{4} =$ <p>a <math>\frac{1}{2}</math> b <math>\frac{1}{16}</math> c <math>\frac{1}{8}</math> d 1 e None</p> <p>(96)</p>	<p>(103)</p> $\begin{array}{r} 384.6 \\ \times 5 \\ \hline \end{array}$ <p>a 19320 b 385.1 c 384.65 d 1923.0 e None</p> <p>(103)</p>
<p>(90)</p> $\begin{array}{r} 805 \\ \times 9 \\ \hline \end{array}$ <p>a 72045 b 7245 c 814 d 796 e None</p> <p>(90)</p>	<p>(97)</p> $\frac{1}{3} \times \frac{3}{4} =$ <p>a <math>\frac{1}{3}</math> b <math>\frac{4}{7}</math> c <math>\frac{1}{4}</math> d 4 e None</p> <p>(97)</p>	<p>(104)</p> $\begin{array}{r} 54.38 \\ \times .0025 \\ \hline \end{array}$ <p>a .038066 b .13595 c 135.95 d 13595 e None</p> <p>(104)</p>
<p>(91)</p> $\begin{array}{r} 687 \\ \times 45 \\ \hline \end{array}$ <p>a 30915 b 6183 c 732 d 30815 e None</p> <p>(91)</p>	<p>(98)</p> $\frac{3}{5} \times \frac{5}{6} =$ <p>a <math>\frac{4}{15}</math> b <math>1\frac{1}{6}</math> c <math>18\frac{1}{25}</math> d <math>\frac{1}{2}</math> e None</p> <p>(98)</p>	<p>(105)</p> $\begin{array}{r} 5 \text{ ft. } 6 \text{ in.} \\ \times 3 \\ \hline \end{array}$ <p>a 16 ft. 6 in. b 5 ft. 9 in. c 15 ft. 18 in. d 6 ft. 6 in. e None</p> <p>(105)</p>
<p>(92)</p> $\begin{array}{r} 489 \\ \times 40 \\ \hline \end{array}$ <p>a 529 b 19560 c 1956 d 18460 e None</p> <p>(92)</p>	<p>(99)</p> $6 \times 2\frac{1}{4} =$ <p>a <math>12\frac{1}{4}</math> b <math>\frac{3}{8}</math> c <math>13\frac{1}{2}</math> d 54 e None</p> <p>(99)</p>	

**STOP** NOW WAIT FOR FURTHER INSTRUCTIONS

**DIRECTIONS:** Do these problems in division. Then mark as you have been told the letter of each correct answer. Finish each column before going on to the next. Be sure to express remainders as fractions and reduce fractions to lowest terms.

**TEST 4 — SECTION G**

<p>(106) <math>8 \overline{)16}</math></p> <p>a 15 b 2 c 3 d 20 e None</p> <p>_____ (106)</p>	<p>(113) <math>36 \overline{)7344}</math></p> <p>a 24 b 204 c 240 d 199 e None</p> <p>_____ (113)</p>	<p>(120) <math>\frac{5}{6} \div \frac{1}{3} =</math></p> <p>a <math>2\frac{1}{2}</math>      d <math>\frac{2}{3}</math> b <math>\frac{5}{18}</math>      e None c <math>\frac{1}{18}</math></p> <p>_____ (120)</p>
<p>(107) <math>9 \overline{)45}</math></p> <p>a 5 b 4 c 6 d 9 e None</p> <p>_____ (107)</p>	<p>(114) <math>200 \overline{)8000}</math></p> <p>a 4 b 400 c 40 d 4000 e None</p> <p>_____ (114)</p>	<p>(121) <math>4\frac{1}{8} \div \frac{3}{4} =</math></p> <p>a <math>3\frac{3}{32}</math>      d <math>5\frac{1}{2}</math> b <math>4\frac{1}{6}</math>      e None c <math>4\frac{3}{32}</math></p> <p>_____ (121)</p>
<p>(108) <math>5 \overline{)30}</math></p> <p>a 8 b 60 c 80 d 6 e None</p> <p>_____ (108)</p>	<p>(115) <math>54 \overline{)4892}</math></p> <p>a <math>9050\frac{25}{27}</math> b 1005 c <math>899\frac{25}{54}</math> d <math>901\frac{16}{27}</math> e None</p> <p>_____ (115)</p>	<p>(122) <math>7\frac{3}{5} \div 3\frac{1}{3} =</math></p> <p>a <math>2\frac{7}{25}</math>      d <math>21\frac{1}{5}</math> b 24      e None c <math>22\frac{4}{5}</math></p> <p>_____ (122)</p>
<p>(109) <math>7 \overline{)357}</math></p> <p>a 501 b 105 c 51 d <math>50\frac{5}{7}</math> e None</p> <p>_____ (109)</p>	<p>(116) <math>2 \div \frac{1}{2} =</math></p> <p>a 4      d 1 b <math>\frac{1}{4}</math>      e None c 2</p> <p>_____ (116)</p>	<p>(123) <math>3 \overline{)92\frac{3}{4}}</math></p> <p>a <math>31\frac{1}{12}</math> b 309 c <math>301\frac{1}{12}</math> d <math>30+2\frac{3}{4}</math> e None</p> <p>_____ (123)</p>
<p>(110) <math>8 \overline{)176}</math></p> <p>a .012 b 202 c 21 d 22 e None</p> <p>_____ (110)</p>	<p>(117) <math>\frac{1}{3} \div 4 =</math></p> <p>a 12      d <math>1\frac{1}{3}</math> b <math>\frac{3}{4}</math>      e None c <math>\frac{1}{12}</math></p> <p>_____ (117)</p>	<p>(124) <math>4 \overline{)5.04}</math></p> <p>a 1260 b 1.26 c 12.6 d .126 e None</p> <p>_____ (124)</p>
<p>(111) <math>5 \overline{)525}</math></p> <p>a 15 b 1005 c 105 d 101 e None</p> <p>_____ (111)</p>	<p>(118) <math>7 \div \frac{3}{4} =</math></p> <p>a <math>5\frac{1}{4}</math>      d <math>7\frac{3}{4}</math> b <math>9\frac{1}{3}</math>      e None c <math>\frac{3}{28}</math></p> <p>_____ (118)</p>	<p>(125) <math>.04 \overline{).504}</math></p> <p>a 1260 b 12.6 c 1.26 d .126 e None</p> <p>_____ (125)</p>
<p>(112) <math>30 \overline{)360}</math></p> <p>a 12 b 120 c <math>1\frac{1}{15}</math> d 102 e None</p> <p>_____ (112)</p>	<p>(119) <math>\frac{4}{5} \div \frac{4}{5} =</math></p> <p>a <math>1\frac{16}{25}</math>      d 1 b <math>\frac{4}{5}</math>      e None c <math>1\frac{3}{5}</math></p> <p>_____ (119)</p>	

**STOP** NOW WAIT FOR FURTHER INSTRUCTIONS

## Language

### INSTRUCTIONS TO STUDENTS:

This is a language test. In taking it you will show what you know about capitalization, punctuation, and words and sentences, and how well you can spell and write. No one can do the whole test correctly, but you should answer as many items as you can. Work as fast as you can without making mistakes.

DO NOT WRITE OR MARK ON THIS TEST BOOKLET UNLESS TOLD TO DO SO BY THE EXAMINER.

**DIRECTIONS:** In the sentences below the line, some of the letters with numbers above them should be capitals. Mark the number of each letter that should be a capital. Some lines may have more than one letter that should be a capital; others may have no such letter.

<p>SAMPLE : A.    <sup>1</sup>His <sup>2 3</sup>name <sup>4</sup>is <sup>5</sup>sam and he is my friend.</p>	<p>Correct Test Booklet Mark</p> <p><u>3</u>    A</p>	<p>Correct Answer Sheet Mark</p> <p>A    1 2 3 4 5          </p>
--	---	--

In Sample A the number 3 letter, s, in sam, should be a capital. Notice how the 3 has been marked.

### TEST 5 — SECTION A

- |  |       |    |
|--|-------|----|
| 1. <sup>1</sup> spring <sup>2 3</sup> is here.   | _____ | 1  |
| 2. <sup>1</sup> does <sup>2</sup> snow <sup>3</sup> fall <sup>4 5</sup> in winter?                   | _____ | 2  |
| 3. <sup>1</sup> moss, <sup>2</sup> ferns, <sup>3</sup> and <sup>4</sup> trees                        | _____ | 3  |
| 4. <sup>1</sup> grow <sup>2 3</sup> in brazil.   | _____ | 4  |
| 5. <sup>1</sup> The <sup>2</sup> baby <sup>3</sup> likes <sup>4</sup> bill, mary,                    | _____ | 5  |
| 6. <sup>1</sup> and <sup>2 3</sup> the dog.  | _____ | 6  |
| 7. <sup>1</sup> The <sup>2</sup> abbreviation <sup>3</sup> for september                             | _____ | 7  |
| 8. <sup>1 2</sup> is <sup>3</sup> always sept.   | _____ | 8  |
| 9. <sup>1</sup> Last <sup>2 3</sup> Friday <sup>4</sup> a friend, Miss smith,                        | _____ | 9  |
| 10. <sup>1</sup> sailed <sup>2 3</sup> for europe.   | _____ | 10 |
| 11. <sup>1</sup> Many <sup>2</sup> people <sup>3</sup> travel <sup>4</sup> through the               | _____ | 11 |
| 12. <sup>1</sup> Andes <sup>2</sup> mountains <sup>3</sup> during vacations.                         | _____ | 12 |
| 13. <sup>1</sup> Father <sup>2</sup> said, <sup>3</sup> "you <sup>4</sup> may <sup>5</sup> go, too." | _____ | 13 |
| 14. <sup>1</sup> Last <sup>2 3</sup> tuesday <sup>4</sup> i visited my                               | _____ | 14 |
| 15. <sup>1</sup> uncle <sup>2 3</sup> John <sup>4</sup> in the city.                                 | _____ | 15 |

**DIRECTIONS:** In the story below the line, numbers 16, 17, 18, etc., indicate places where punctuation may or may not be needed. In the answer row which has the number used in the story, make a black mark within the pair of dotted lines under the punctuation needed. If none is needed, mark N. Use the same answer row to show all punctuation needed at any one number in the story.

SAMPLE: B. Yes<sub>1</sub> I shall go<sub>2</sub> to your party<sub>3</sub>

Correct Test Booklet  
and Answer Sheet Mark

1.	•	,	?	"	N
2.	•	,	?	"	N
3.	•	,	?	"	N

A comma is needed at 1 after the word, yes, in Sample B, so a mark has been made under the comma in answer row 1. A mark under N in answer row 2 shows that punctuation is not needed at 2 in the sample. A mark under the period in answer row 3 shows the punctuation needed at 3 in the sample.

### TEST 5 — SECTION B

Jack wanted a dog<sub>16</sub> to play  
with<sub>17</sub> Therefore<sub>18</sub> he told his  
father about it.<sub>19</sub>

Jack said,<sub>20</sub> Father<sub>21</sub> will you  
buy a dog<sub>22</sub> for me to play  
with<sub>23</sub>"

His father said<sub>24</sub> "If I buy you  
a dog<sub>25</sub> to play with<sub>26</sub> what  
will<sub>27</sub> you name him<sub>28</sub>

In reply<sub>29</sub> Jack said that he'd  
name him Spot.<sub>30</sub>

16.	•	,	?	"	N
17.	•	,	?	"	N
18.	•	,	?	"	N
19.	•	,	?	"	N
20.	•	,	?	"	N
21.	•	,	?	"	N
22.	•	,	?	"	N
23.	•	,	?	"	N
24.	•	,	?	"	N
25.	•	,	?	"	N
26.	•	,	?	"	N
27.	•	,	?	"	N
28.	•	,	?	"	N
29.	•	,	?	"	N
30.	•	,	?	"	N

**DIRECTIONS:** In the following sentences, mark as you have been told the number of each correct word.

**TEST 5 — SECTION C**

31. Mother (<sup>1</sup> may <sup>2</sup> can) I go out? \_\_\_\_\_ 31
32. (<sup>1</sup> Lemme <sup>2</sup> Let me) have the ball. \_\_\_\_\_ 32
33. Where (<sup>1</sup> was <sup>2</sup> were) you last night? \_\_\_\_\_ 33
34. The book was (<sup>1</sup> taken <sup>2</sup> took) from the shelf. \_\_\_\_\_ 34
35. The teacher will (<sup>1</sup> learn <sup>2</sup> teach) us. \_\_\_\_\_ 35
36. We (<sup>1</sup> sung <sup>2</sup> sang) the song. \_\_\_\_\_ 36
37. She (<sup>1</sup> ate <sup>2</sup> et) her spinach. \_\_\_\_\_ 37
38. He (<sup>1</sup> don't <sup>2</sup> doesn't) ride his bicycle. \_\_\_\_\_ 38
39. Mother bought the candy for (<sup>1</sup> us <sup>2</sup> we) girls. \_\_\_\_\_ 39
40. I (<sup>1</sup> knowed <sup>2</sup> knew) the candy was hard. \_\_\_\_\_ 40

✓ For each statement given below that is a complete sentence, mark YES; for each that is not, mark NO.

41. The boy went to the playground. YES NO 41
42. When he returns. YES NO 42
43. She likes to read. YES NO 43
44. Are they coming? YES NO 44
45. The man of whom you were speaking. YES NO 45
46. The speech was given in the lecture room. YES NO 46
47. Near the source of the river and by the waterfall. YES NO 47
48. Month by month he continued to advance. YES NO 48
49. In order to provide the necessities of life. YES NO 49
50. Calling to his dog and running at top speed after his friends. YES NO 50

**STOP**

NOW WAIT FOR  
FURTHER INSTRUCTIONS

Sec. C Score  
(number right) .....

**DIRECTIONS:** Each line in this test contains four spelling words and the word, None. These words are numbered 1, 2, 3, 4, and the None is numbered 5. In some of the lines, one word is misspelled. In others, no word is misspelled. If there is a misspelled word, mark its number. If no word is misspelled, mark the 5.

		Correct Test Booklet Mark	Correct Answer Sheet Mark				
SAMPLE: C.	1 now 2 just 3 come 4 ron 5 None	4 c	C	1	2	3	4 1
SAMPLE: D.	1 go 2 see 3 do 4 may 5 None	5 D	D	1	2	3	4 1

## TEST 6

51.	1 could	2 warme	3 inside	4 mile	5 None	51
52.	1 sure	2 yellow	3 quick	4 pick	5 None	52
53.	1 gess	2 scare	3 pocket	4 trade	5 None	53
54.	1 north	2 broak	3 easy	4 because	5 None	54
55.	1 teeth	2 push	3 party	4 weare	5 None	55
56.	1 coast	2 blind	3 twomorrow	4 alive	5 None	56
57.	1 dash	2 bridege	3 front	4 pasture	5 None	57
58.	1 twice	2 knee	3 drank	4 allmost	5 None	58
59.	1 lady	2 drum	3 asleep	4 teacher	5 None	59
60.	1 ofen	2 wheel	3 shake	4 open	5 None	60
61.	1 toad	2 expeckt	3 ribbon	4 quite	5 None	61
62.	1 squirrel	2 parade	3 rattle	4 weigt	5 None	62
63.	1 form	2 bud	3 adress	4 base	5 None	63
64.	1 ditch	2 lisened	3 fever	4 leaving	5 None	64
65.	1 mice	2 year	3 befor	4 slow	5 None	65
66.	1 subgect	2 reduce	3 worry	4 oyster	5 None	66
67.	1 thimble	2 opposite	3 machine	4 visiter	5 None	67
68.	1 apron	2 cork	3 usal	4 extra	5 None	68
69.	1 fingerprint	2 promice	3 dangerous	4 whenever	5 None	69
70.	1 pudding	2 lonesome	3 noisy	4 streight	5 None	70
71.	1 patient	2 victory	3 famus	4 invention	5 None	71
72.	1 secund	2 cracker	3 jelly	4 flies	5 None	72
73.	1 ninth	2 profit	3 sucess	4 future	5 None	73
74.	1 conversation	2 asist	3 female	4 obedient	5 None	74
75.	1 level	2 dentist	3 rejon	4 worst	5 None	75
76.	1 gotten	2 arive	3 pavement	4 conduct	5 None	76
77.	1 reward	2 bonnet	3 hatchet	4 sissors	5 None	77
78.	1 particuler	2 orchard	3 frighten	4 ceiling	5 None	78
79.	1 dramas	2 resemblance	3 varieties	4 benefited	5 None	79
80.	1 importance	2 disturb	3 caution	4 probaly	5 None	80



✓ Write the words which are pronounced.

1 \_\_\_\_\_

2 \_\_\_\_\_

3 \_\_\_\_\_

**STOP** NOW WAIT FOR FURTHER INSTRUCTIONS

Grade

Placement.....

## Elementary

### DIAGNOSTIC ANALYSIS OF LEARNING DIFFICULTIES

#### 1. Reading Vocabulary

##### A. WORD FORM:

- 1-15 - Lower case words  
16, 17, 18, 19 - Capitals  
20, 21, 22, 23, 24, 25 - Miscell. type faces

##### B. WORD RECOGNITION:

- 26, 29, 31 - Gross differences  
27, 28, 30, 32-45 - Initial sounds or endings

##### C. OPPOSITES:

- 46-68 - Basic vocabulary

##### D. SIMILARITIES:

- 69-90 - Basic vocabulary

#### 2. Reading Comprehension

##### E. FOLLOWING SPECIFIC DIRECTIONS:

- 91, 95 - Simple directions  
92, 93, 94, 96, 97, 98 - Directions, simple choice  
99, 100 - Defin. and direct.

##### F. REFERENCE SKILLS:

- 101, 102 - Parts of book  
103, 104 - Alphabetizing  
105, 106, 107 - Table of contents  
108, 109, 110 - Use of index

##### G. INTERPRETATION OF MEANINGS:

- 111, 117 - Topic or central idea  
112, 113, 118, 119, 122, 123 - Directly stated facts  
114, 115, 116, 120, 121 - Making inferences  
124, 125, 126 - Organ. of topics  
127, 128, 129, 130 - Sequence of events

### 3. Arithmetic Reasoning

#### A. NUMBER CONCEPT:

- 1, 2, 3, 4, 5 - Writing numbers  
6, 7 - Writing money  
8, 9, 10 - Roman numbers  
11 - Whole numbers  
12, 13, 14, 15 - Frac., dec., per ct.

#### B. SIGNS AND SYMBOLS:

- 16, 17, 18, 19, 20, 21, 22, 23, 24, 27, 28, 29, 30 - Signs  
25, 26 - Abbreviations

#### C. PROBLEMS:

- 31, 32, 33, 34 - One-step  
35, 36, 37, 38, 42 - Two-step  
34, 36, 37, 38 - Sharing and averaging  
39, 40 - Sq. and cubic measure  
41 - Fraction  
43, 44 - Percentage  
45 - Ratio

### 4. Arithmetic Fundamentals

#### D. ADDITION:

- 46, 47, 48 - Simple combinations  
47, 48 - Zeros  
49 - Higher decades  
50, 51 - Carrying  
52, 53 - Column addition  
53, 54 - Adding money  
55 - Adding numerators  
56, 58, 59, 60, 61 - Common denominators  
57, 58, 59, 60, 61 - Adding mixed numbers  
62 - Fractions and decimals  
63, 64 - Writing decimals  
65 - Denominate numbers

#### E. SUBTRACTION:

- 66, 67, 68, 69 - Simple combinations  
70, 71, 72 - Borrowing  
68, 69, 72 - Zeros  
73, 74 - Subtracting money  
75, 76 - Subtracting numerators  
77, 78 - Common denominators  
79, 80, 81 - Mixed numbers  
82 - Fractions from decimals

#### F. SUBTRACTION: (Cont.)

- 83, 84 - Writing decimals  
85 - Denominate numbers

#### F. MULTIPLICATION:

- 86, 87, 88, 89, 90, 91, 92, 93, 94 - Tables  
87, 90, 93 - Zeros in multiplicand  
92, 93, 94 - Zeros in multiplier  
91, 92, 93, 94 - Two and three-place multipliers  
95, 96 - Mult. with fractions.  
97, 98 - Cancellation, fractions  
99, 100, 101, 102 - Mixed numbers  
103, 104 - Pointing off decimals  
105 - Denominate numbers

#### G. DIVISION:

- 106, 107, 108, 109, 110, 111, 112, 113, 114 - Tables  
108, 111, 114 - Zeros in quotient  
115 - Remainders  
116, 117, 118, 119, 120, 121 - Inverting divisors  
121, 122, 123 - Mixed numbers  
124, 125 - Pointing off decimals

### 5. Mechanics of English, and Grammar

#### A. CAPITALIZATION:

- 1, 2, 3 - First word of sentence  
5, 9 - Names of persons  
4, 10, 12 - Names of places  
7, 14 - Day or month  
8 - Abbreviation for month  
13 - First word of quotation  
14 - Pronoun "I"  
15 - Title of person  
Over-capitalization

#### B. PUNCTUATION:

- 17 - Periods  
18, 21, 24, 26, 29 - Commas  
20, 28 - Quotation marks  
23, 28 - Question marks  
Over-punctuation

#### C. WORDS AND SENTENCES:

- 31, 32, 33, 35 - Good usage  
34, 38, 39 - Case  
36, 37 - Tense  
40 - Number  
41-50 - Recognizing sentences

#### 6. Spelling: (51-80) See profile

HANDWRITING: See profile

(CIRCLE ONE)

Boy Girl

Grade

Date of Test

Month Day Year

Date of Birth

Month Day Year

Middle

City

Pupil's Age

( )

Examiner

First

School

BB

4-5-6

form

Last

Elementary

DEvised BY

ERNEST W. TIEGS

AND

WILLIS W. CLARK

California Achievement Tests

GRADES 4-5-6

elementary

form

BB

4-5-6

elementary

form

BB

4-5-6

elementary

form

BB

4-5-6

elementary

form

BB

4-5-6

elementary

form

BB

4-5-6

elementary

form

BB

See MANUAL for instructions.

TEST	SECTION	POSSIBLE SCORE	PUPIL'S SCORE
1. READING VOCABULARY	A. Word Form	25	
	B. Word Recognition	20	
	C. Meaning of Opposites	23	
	D. Meaning of Similarities	22	
	TOTAL (A+B+C+D)	90	
2. READING COMPREHENSION	E. Following Directions	10	
	F. Reference Skills	10	
	G. Interpretations	20	
	TOTAL (E+F+G)	40	
TOTAL READING		130	
3. ARITHMETIC REASONING	A. Number Concept	15	
	B. Signs and Symbols	15	
	C. Problems	15	
	TOTAL (A+B+C)	45	
4. ARITHMETIC FUNDAMENTALS	D. Addition	20	
	E. Subtraction	20	
	F. Multiplication	20	
	G. Division	20	
	TOTAL (D+E+F+G)	80	
TOT. ARITHMETIC		125	
5. MECH. OF ENGLISH AND GRAMMAR	A. Capitalization	15	
	B. Punctuation	10	
	C. Words and Sentences	20	
TOTAL (A+B+C)		45	
6. SPELLING	TOTAL SPELLING	30	
	TOTAL LANGUAGE	75	
TOTAL TEST		330	

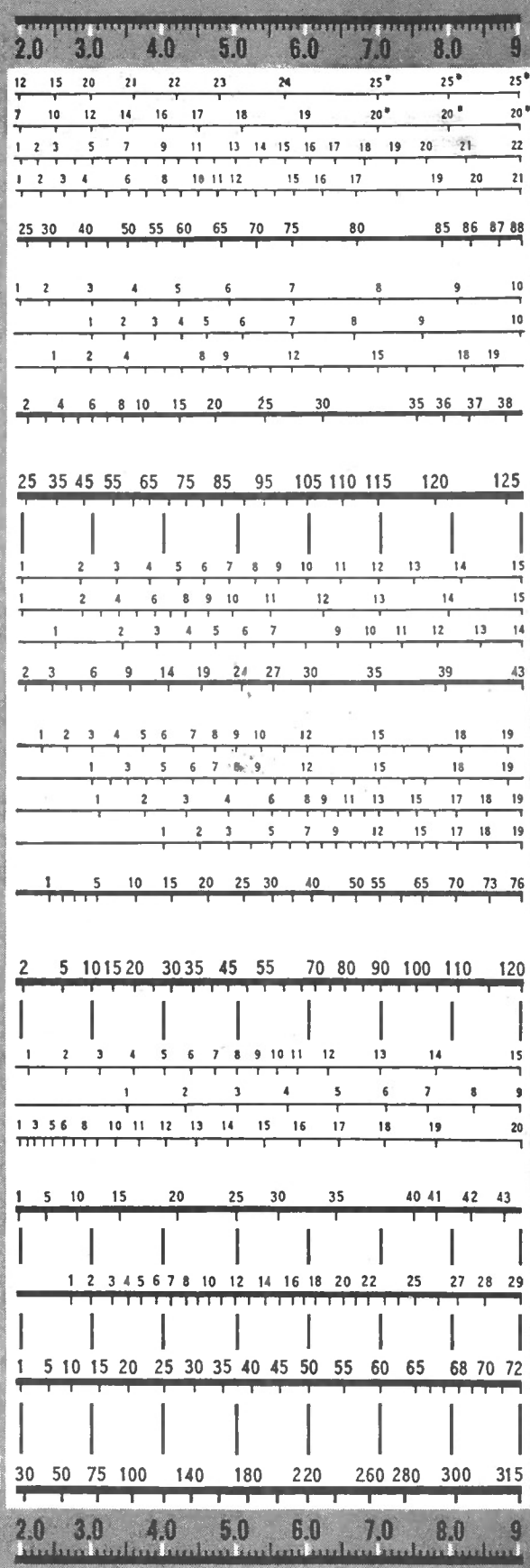
Handwriting

Grade Placement

Percentile Rank

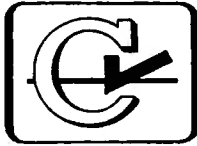
DIAGNOSTIC PROFILE (Chart Pupil's Scores Here)

Grade Placement



\* When maximum scores are achieved, plot the score which most nearly conforms to Total Reading Grade Placement.

PUBLISHED BY CALIFORNIA TEST BUREAU—5916 HOLLYWOOD BOULEVARD—LOS ANGELES 28, CALIFORNIA—BRANCH OFFICES: MADISON, WISC.; NEW GUMBERLAND, PA.—COPYRIGHT 1934-1950 BY CALIFORNIA TEST BUREAU—COPYRIGHT UNDER INTERNATIONAL COPYRIGHT UNION—ALL RIGHTS RESERVED UNDER PAN-AMERICAN COPYRIGHT UNION—PRINTED IN U.S.A.



Elementary • GRADES 4 • 5 • 6 • 7 • 8 • 1950 S-Form  
**California Short-Form  
Test of Mental Maturity**

Devised by

ELIZABETH T. SULLIVAN, WILLIS W. CLARK, AND ERNEST W. TIEGS

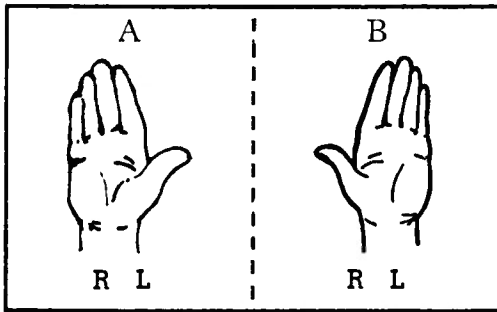
**INSTRUCTIONS TO PUPILS:**

This is a test of mental maturity. In taking it you will show how well you understand relationships and what you do when you face new problems. No one is expected to do the whole test correctly, but you should answer as many items as you can. Work as fast as you can without making mistakes.

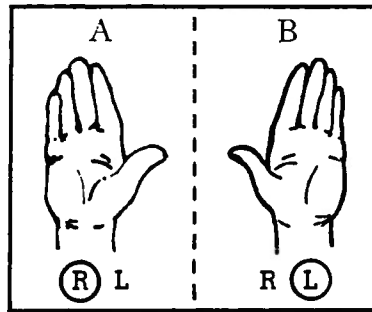
**DO NOT WRITE OR MARK ON THIS TEST BOOKLET UNLESS TOLD TO DO SO BY THE EXAMINER.**

**DIRECTIONS:** Mark as you are told the letter, R, for each right hand or foot; mark the letter, L, for each left hand or foot.

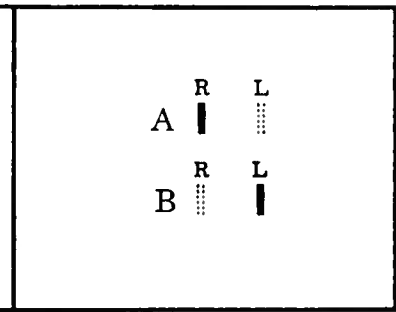
Samples A and B



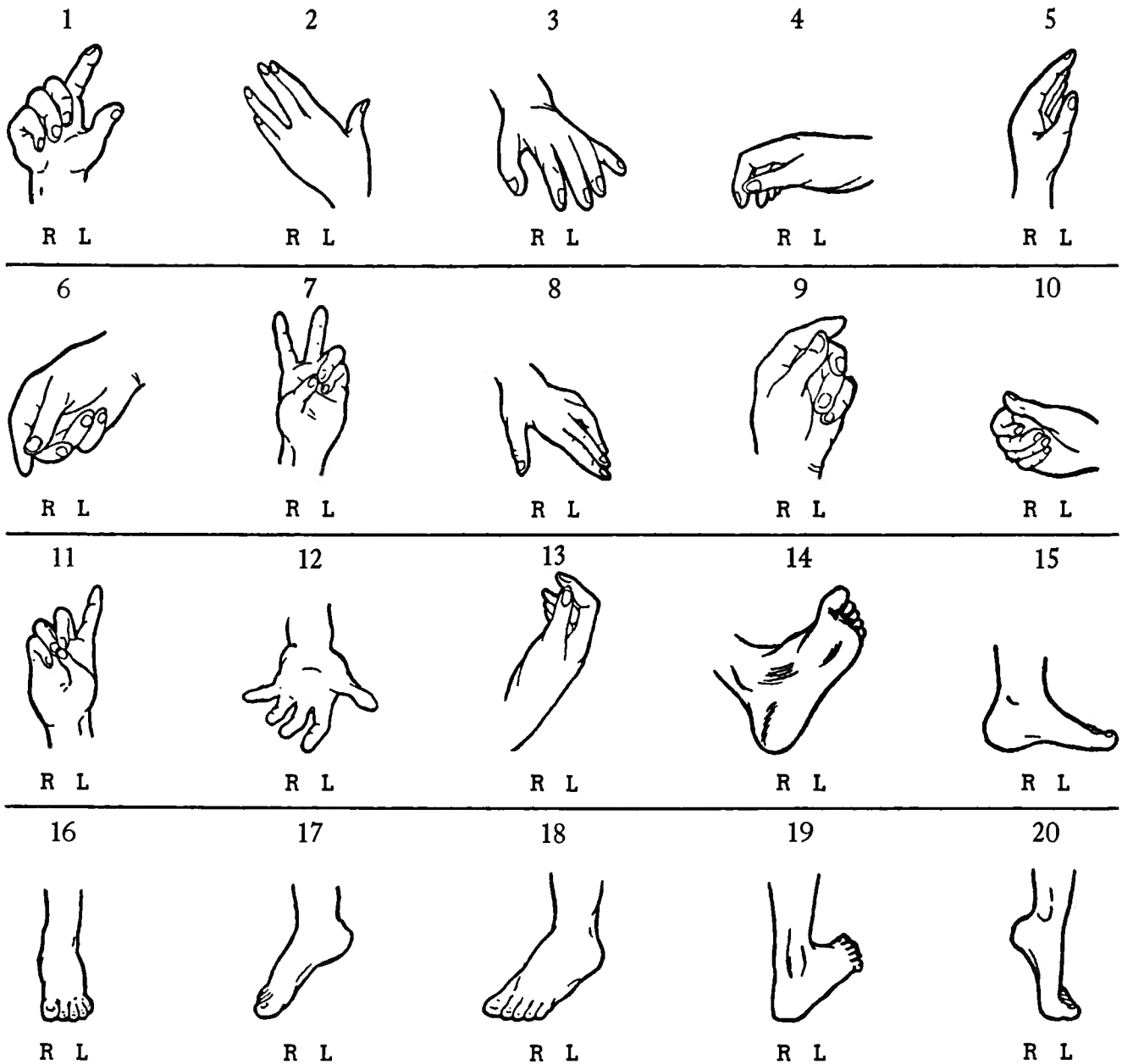
Correct Test Booklet Marks



Correct Answer Sheet Marks



**TEST 1**











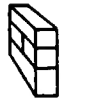
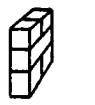






































































**STOP**

NOW WAIT FOR  
FURTHER INSTRUCTIONS

Test 1 Score  
(number right).....

**DIRECTIONS:** In each row find the drawing that is a different view of the first drawing.  
Mark its number as you are told.

**TEST 2**

<p><b>C</b></p>      <p>1      2      3      4      <u>    </u> C</p>	<p><b>28</b></p>      <p>1      2      3      4      <u>    </u> 28</p>
<p><b>21</b></p>      <p>1      2      3      4      <u>    </u> 21</p>	<p><b>29</b></p>      <p>1      2      3      4      <u>    </u> 29</p>
<p><b>22</b></p>      <p>1      2      3      4      <u>    </u> 22</p>	<p><b>30</b></p>      <p>1      2      3      4      <u>    </u> 30</p>
<p><b>23</b></p>      <p>1      2      3      4      <u>    </u> 23</p>	<p><b>31</b></p>      <p>1      2      3      4      <u>    </u> 31</p>
<p><b>24</b></p>      <p>1      2      3      4      <u>    </u> 24</p>	<p><b>32</b></p>      <p>1      2      3      4      <u>    </u> 32</p>
<p><b>25</b></p>      <p>1      2      3      4      <u>    </u> 25</p>	<p><b>33</b></p>      <p>1      2      3      4      <u>    </u> 33</p>
<p><b>26</b></p>      <p>1      2      3      4      <u>    </u> 26</p>	<p><b>34</b></p>      <p>1      2      3      4      <u>    </u> 34</p>
<p><b>27</b></p>      <p>1      2      3      4      <u>    </u> 27</p>	<p><b>35</b></p>      <p>1      2      3      4      <u>    </u> 35</p>

**STOP**

NOW WAIT FOR FURTHER INSTRUCTIONS



**DIRECTIONS:** The first three pictures in each row are alike in some way. Decide how they are alike, and then find the one picture among the four to the right of the dotted line that is most like them and mark its number.

# TEST 3

<p><b>D</b></p> <p>1 2 3 4 ____D</p>	<p>43</p> <p>1 2 3 4 ____43</p>
<p>36</p> <p>1 2 3 4 ____36</p>	<p>44</p> <p>1 2 3 4 ____44</p>
<p>37</p> <p>1 2 3 4 ____37</p>	<p>45</p> <p>1 2 3 4 ____45</p>
<p>38</p> <p>1 2 3 4 ____38</p>	<p>46</p> <p>1 2 3 4 ____46</p>
<p>39</p> <p>1 2 3 4 ____39</p>	<p>47</p> <p>1 2 3 4 ____47</p>
<p>40</p> <p>1 2 3 4 ____40</p>	<p>48</p> <p>1 2 3 4 ____48</p>
<p>41</p> <p>1 2 3 4 ____41</p>	<p>49</p> <p>1 2 3 4 ____49</p>
<p>42</p> <p>1 2 3 4 ____42</p>	<p>50</p> <p>1 2 3 4 ____50</p>

**DIRECTIONS:** Read each group of statements below and the conclusions which follow. Then mark as you are told the number of each answer you have decided is correct.

# TEST 4

E. If the sun shines it is day.

The sun shines.

Therefore

<sup>1</sup> It will not rain

<sup>2</sup> It is day

<sup>3</sup> The moon may shine tonight —E

51. All four-footed creatures are animals.

All horses are four-footed.

Therefore

<sup>1</sup> Creatures other than horses can walk

<sup>2</sup> All horses can walk

<sup>3</sup> All horses are animals —51

52. Either the sun moves around the earth or the earth moves around the sun.

But the sun does not move around the earth.

Therefore

<sup>1</sup> The earth moves around the moon

<sup>2</sup> The earth moves around the sun

<sup>3</sup> The sun is larger than the earth —52

53. Jack runs faster than Harry.

Bert runs faster than Harry.

Which is the slowest of the three?

<sup>1</sup> Bert

<sup>2</sup> Jack

<sup>3</sup> Harry —53

54. Jane is taller than Helen.

Helen is taller than Barbara.

Which is the tallest: Jane, Helen, or Barbara?

<sup>1</sup> Helen

<sup>2</sup> Jane

<sup>3</sup> Barbara —54

55. All mammals are vertebrates.

The cow is a mammal.

Therefore

<sup>1</sup> Some vertebrates live on land

<sup>2</sup> Some mammals live in water

<sup>3</sup> The cow is a vertebrate —55

56. A is either B or C.

A is not C.

Therefore

<sup>1</sup> A is not B

<sup>2</sup> A is B

<sup>3</sup> C is B —56

57. Either your cousin is older than you, or the same age, or younger.

But your cousin is not older, nor is he younger.

Therefore

<sup>1</sup> Your cousin is younger than you

<sup>2</sup> Your cousin is older than you

<sup>3</sup> Your cousin is the same age as you —57

**TEST 4 (Continued)**

58. All circles are round figures.  
A certain figure is not round.  
Therefore

<sup>1</sup> It is not a circle

<sup>2</sup> It is oval

<sup>3</sup> It is either a square or a triangle

\_\_\_\_\_58

59. All metals except mercury are solids.  
Gold is a metal.  
Therefore

<sup>1</sup> Gold is valuable

<sup>2</sup> Gold is a solid

<sup>3</sup> Metals are usually heavy

\_\_\_\_\_59

60. Some fishes fly.  
No birds are fishes.  
Therefore

<sup>1</sup> All creatures that fly are fishes or birds

<sup>2</sup> No fishes resemble birds

<sup>3</sup> Creatures other than birds can fly

\_\_\_\_\_60

61. Three boys are up on a ladder.  
Tom is farther up the ladder than Paul.  
Jim is farther up than Tom.  
Which boy is in the middle position on the ladder?

<sup>1</sup> Tom

<sup>2</sup> Paul

<sup>3</sup> Jim

\_\_\_\_\_61

62. George Washington was a skillful general.

George Washington was President of the United States.

Therefore

<sup>1</sup> Skillful generals make good presidents

<sup>2</sup> One President of the United States was a skillful general

<sup>3</sup> Good presidents make skillful generals

\_\_\_\_\_62

63. A is situated to the east of B.  
B is situated to the east of C.  
Therefore

<sup>1</sup> C is situated close to A

<sup>2</sup> A is situated to the east of C

<sup>3</sup> C is nearer to A than to B

\_\_\_\_\_63

64. He is either honest or dishonest.  
But he is not dishonest.  
Therefore

<sup>1</sup> He is desirable for a position

<sup>2</sup> He comes from honest people

<sup>3</sup> He is honest

\_\_\_\_\_64

65. A is equal to B.  
B is equal to C.  
Therefore

<sup>1</sup> B is larger than C

<sup>2</sup> A is equal to C

<sup>3</sup> A is equal to B plus C

\_\_\_\_\_65

**STOP**

NOW WAIT FOR  
FURTHER INSTRUCTIONS



**DIRECTIONS:** In each row of numbers below, there is one that does not belong. Find the number that should be omitted from each row among the answer numbers on the right, and mark its letter as you are told.

### TEST 5.

F. 2 4 6 8 9 10 12 14

a 8 b 9 c 10 d 12 e 14 \_\_\_\_ F

(66). 5 10 15 20 22 25 30

a 5 b 10 c 15 d 20 e 22 \_\_\_\_ 66

(67). 18 15 13 12 9 6 3

a 15 b 13 c 12 d 9 e 3 \_\_\_\_ 67

(68). 2 5 8 10 11 14 17

a 5 b 8 c 10 d 11 e 17 \_\_\_\_ 68

(69). 1 2 4 8 14 16 32

a 2 b 4 c 8 d 14 e 16 \_\_\_\_ 69

(70). 27 9 3 1 0  $\frac{1}{3}$

a 9 b 3 c 1 d 0 e  $\frac{1}{3}$  \_\_\_\_ 70

(71). 3 4 7 8 10 11 12 15

a 7 b 10 c 11 d 12 e 15 \_\_\_\_ 71

(72). 3 9 27 76 81 243

a 9 b 27 c 76 d 81 e 243 \_\_\_\_ 72

(73). 25 24 22 19 18 16 13 12 9 10 7

a 25 b 22 c 19 d 13 e 9 \_\_\_\_ 73

(74). 1 2 4 7 11 15 16 22 29 37

a 15 b 16 c 22 d 29 e 37 \_\_\_\_ 74

(75). 12.5 11.4 10.3 9.8 9.2 8.1 7.0

a 11.4 b 9.8 c 9.2 d 8.1 e 7.0 \_\_\_\_ 75

**DIRECTIONS:** Work these problems on a sheet of scratch paper. Mark as you are told the letter of each correct answer.

**TEST 6**

- G. There are 5 birds in a tree and 3 birds on a fence. How many birds are there in both places?  
a 2  
b 8  
c 15  
d 7 \_\_\_\_\_G
- 
76. Tom has 5 marbles. Bob has 4 marbles. Bill has 3 marbles. How many marbles do all three boys have?  
a 1  
b 2  
c 12  
d 60 \_\_\_\_\_76
- 
77. Tickets to a show cost 10 cents. Jim bought 2 tickets. How much did he pay for them?  
a 20¢  
b 2¢  
c 12¢  
d 8¢ \_\_\_\_\_77
- 
78. Ben earns 4 dollars each week helping his father after school. He has earned 16 dollars. How many weeks has he been working?  
a 20  
b 64  
c \$4  
d 4 \_\_\_\_\_78
- 
79. Seventy girl scouts were divided into 5 groups of equal size. How many girls were there in each group?  
a 15  
b 14  
c 20  
d 3 \_\_\_\_\_79
- 
80. How many marbles can you buy for 25 cents at the rate of 3 for 5 cents?  
a 15  
b 75  
c 33  
d 40 \_\_\_\_\_80
- 
81. Two boys bought watermelons and sold slices of them at a ball game. They had 50 cents in the cash box to start with. They sold 40 slices of melon at 5 cents a slice. How much should they have in the cash box at the end of the day?  
a \$2.00  
b 80¢  
c \$3.00  
d \$2.50 \_\_\_\_\_81
- 
82. Balls which usually sold for 65 cents were sold for a short time for 25 cents less. Frank bought a ball at the lower price and gave the clerk 50 cents. How much change should he get back?  
a 25¢  
b 20¢  
c 10¢  
d 5¢ \_\_\_\_\_82

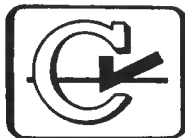
# TEST 6 (Continued)

83. At Camp No. 9 it took 10 boy scouts 3 days to set up camp. Camp No. 12, which is the same size, must be set up in one day. How many boys will be needed to do the work?  
 a 3  
 b 30  
 c 27  
 d 13 \_\_\_\_\_ 83
- 
84. George lives one-fourth of a mile from school. He goes home at noon for lunch. How far does he walk each day going to and from school?  
 a  $\frac{1}{2}$  mi.  
 b 1 mi.  
 c  $\frac{3}{4}$  mi.  
 d  $1\frac{1}{2}$  mi. \_\_\_\_\_ 84
- 
85. A newsboy delivered papers to 30 customers for a month. At the end of the month he collected \$15.00. How much did each customer pay?  
 a 50¢  
 b \$2.00  
 c 5¢  
 d \$5.00 \_\_\_\_\_ 85
- 
86. There are 20 girls in the Sunday School class. Each week each girl gives 5 cents to go toward a fund for needy families. How much will all the girls give in 5 weeks?  
 a \$1.00  
 b 25¢  
 c \$5.00  
 d \$7.50 \_\_\_\_\_ 86
- 
87. Richard saw an air rifle advertised for \$21.00 at one-third off for cash. How much money will he need to buy it?  
 a \$14.00  
 b \$7.00  
 c \$18.00  
 d \$9.00 \_\_\_\_\_ 87
- 
88. How much will your mother have to pay for the cleaning of a rug 9 ft. wide and 12 ft. long at the rate of 20 cents a square foot?  
 a \$8.40  
 b \$1.08  
 c \$4.20  
 d \$21.60 \_\_\_\_\_ 88
- 
89. In a field meet, 20 events were listed for the day. Pupils from your school won 60 per cent of the events. How many events did you lose?  
 a 4  
 b 3  
 c 8  
 d 12 \_\_\_\_\_ 89
- 
90. A swimming pool is 60 ft. long and 30 ft. wide. The water in the pool is 4 ft. deep on the average. How long will it take to fill the pool if the water runs in at the rate of 90 cubic feet a minute?  
 a 80 min.  
 b 5 min.  
 c 26 min.  
 d 45 min. \_\_\_\_\_ 90

**DIRECTIONS:** Mark as you are told the number of the word that means the same or about the same as the first word.

### TEST 7

- |                    |                           |                           |     |
|--------------------|---------------------------|---------------------------|-----|
| H. blossom         | <sup>1</sup> tree         | <sup>2</sup> vine         |     |
|                    | <sup>3</sup> flower       | <sup>4</sup> garden       | H   |
| 91. journey        | <sup>1</sup> state        | <sup>2</sup> travel       |     |
|                    | <sup>3</sup> end          | <sup>4</sup> fair         | 91  |
| 92. law            | <sup>1</sup> rule         | <sup>2</sup> power        |     |
|                    | <sup>3</sup> able         | <sup>4</sup> help         | 92  |
| 93. always         | <sup>1</sup> larger       | <sup>2</sup> forever      |     |
|                    | <sup>3</sup> know         | <sup>4</sup> apart        | 93  |
| 94. almost         | <sup>1</sup> rarely       | <sup>2</sup> never        |     |
|                    | <sup>3</sup> now          | <sup>4</sup> nearly       | 94  |
| 95. alarm          | <sup>1</sup> blame        | <sup>2</sup> signal       |     |
|                    | <sup>3</sup> address      | <sup>4</sup> comfort      | 95  |
| 96. damage         | <sup>1</sup> manage       | <sup>2</sup> collect      |     |
|                    | <sup>3</sup> injure       | <sup>4</sup> recover      | 96  |
| 97. announce       | <sup>1</sup> keep         | <sup>2</sup> publish      |     |
|                    | <sup>3</sup> reform       | <sup>4</sup> destroy      | 97  |
| 98. improve        | <sup>1</sup> make         | <sup>2</sup> better       |     |
|                    | <sup>3</sup> satisfy      | <sup>4</sup> admit        | 98  |
| 99. difficult      | <sup>1</sup> different    | <sup>2</sup> pleasant     |     |
|                    | <sup>3</sup> hard         | <sup>4</sup> task         | 99  |
| 100. despair       | <sup>1</sup> mind         | <sup>2</sup> time         |     |
|                    | <sup>3</sup> past         | <sup>4</sup> hopelessness | 100 |
| 101. consent       | <sup>1</sup> occur        | <sup>2</sup> offer        |     |
|                    | <sup>3</sup> oppose       | <sup>4</sup> agree        | 101 |
| 102. portion       | <sup>1</sup> collect      | <sup>2</sup> part         |     |
|                    | <sup>3</sup> make         | <sup>4</sup> refer        | 102 |
| 103. amuse         | <sup>1</sup> afford       | <sup>2</sup> gift         |     |
|                    | <sup>3</sup> game         | <sup>4</sup> please       | 103 |
| 104. lack          | <sup>1</sup> use          | <sup>2</sup> want         |     |
|                    | <sup>3</sup> admit        | <sup>4</sup> apart        | 104 |
| 105. cease         | <sup>1</sup> consent      | <sup>2</sup> concert      |     |
|                    | <sup>3</sup> stop         | <sup>4</sup> strain       | 105 |
| 106. disguise      | <sup>1</sup> reveal       | <sup>2</sup> declare      |     |
|                    | <sup>3</sup> show         | <sup>4</sup> mask         | 106 |
| 107. distinct      | <sup>1</sup> success      | <sup>2</sup> clear        |     |
|                    | <sup>3</sup> interest     | <sup>4</sup> noticed      | 107 |
| 108. sincere       | <sup>1</sup> satisfactory | <sup>2</sup> genuine      |     |
|                    | <sup>3</sup> hopeful      | <sup>4</sup> noble        | 108 |
| 109. lofty         | <sup>1</sup> tone         | <sup>2</sup> high         |     |
|                    | <sup>3</sup> example      | <sup>4</sup> toil         | 109 |
| 110. extend        | <sup>1</sup> refuse       | <sup>2</sup> remain       |     |
|                    | <sup>3</sup> lengthen     | <sup>4</sup> revert       | 110 |
| 111. condemn       | <sup>1</sup> false        | <sup>2</sup> blame        |     |
|                    | <sup>3</sup> oppose       | <sup>4</sup> alarm        | 111 |
| 112. humble        | <sup>1</sup> secure       | <sup>2</sup> dwelling     |     |
|                    | <sup>3</sup> lowly        | <sup>4</sup> proud        | 112 |
| 113. expert        | <sup>1</sup> average      | <sup>2</sup> master       |     |
|                    | <sup>3</sup> business     | <sup>4</sup> student      | 113 |
| 114. apply         | <sup>1</sup> piece        | <sup>2</sup> use          |     |
|                    | <sup>3</sup> correct      | <sup>4</sup> mean         | 114 |
| 115. legal         | <sup>1</sup> lawful       | <sup>2</sup> court        |     |
|                    | <sup>3</sup> lawyer       | <sup>4</sup> humane       | 115 |
| 116. endeavor      | <sup>1</sup> help         | <sup>2</sup> hero         |     |
|                    | <sup>3</sup> attempt      | <sup>4</sup> harm         | 116 |
| 117. conclusion    | <sup>1</sup> settlement   | <sup>2</sup> end          |     |
|                    | <sup>3</sup> journey      | <sup>4</sup> right        | 117 |
| 118. obscure       | <sup>1</sup> clear        | <sup>2</sup> hidden       |     |
|                    | <sup>3</sup> odd          | <sup>4</sup> quaint       | 118 |
| 119. extraordinary | <sup>1</sup> loud         | <sup>2</sup> unusual      |     |
|                    | <sup>3</sup> particular   | <sup>4</sup> favorable    | 119 |
| 120. location      | <sup>1</sup> relieve      | <sup>2</sup> choice       |     |
|                    | <sup>3</sup> view         | <sup>4</sup> situation    | 120 |
| 121. imaginary     | <sup>1</sup> existing     | <sup>2</sup> trifling     |     |
|                    | <sup>3</sup> unreal       | <sup>4</sup> substantial  | 121 |
| 122. escort        | <sup>1</sup> avoid        | <sup>2</sup> occasion     |     |
|                    | <sup>3</sup> attend       | <sup>4</sup> remain       | 122 |
| 123. merit         | <sup>1</sup> deserve      | <sup>2</sup> merry        |     |
|                    | <sup>3</sup> desire       | <sup>4</sup> just         | 123 |
| 124. compile       | <sup>1</sup> aid          | <sup>2</sup> ample        |     |
|                    | <sup>3</sup> collect      | <sup>4</sup> answer       | 124 |
| 125. console       | <sup>1</sup> empower      | <sup>2</sup> reduce       |     |
|                    | <sup>3</sup> order        | <sup>4</sup> comfort      | 125 |
| 126. legislator    | <sup>1</sup> elector      | <sup>2</sup> lawmaker     |     |
|                    | <sup>3</sup> minor        | <sup>4</sup> citizen      | 126 |
| 127. revert        | <sup>1</sup> persist      | <sup>2</sup> perplex      |     |
|                    | <sup>3</sup> return       | <sup>4</sup> unknown      | 127 |
| 128. significance  | <sup>1</sup> prevention   | <sup>2</sup> age          |     |
|                    | <sup>3</sup> meaning      | <sup>4</sup> certainty    | 128 |
| 129. petulant      | <sup>1</sup> oppressive   | <sup>2</sup> stagnant     |     |
|                    | <sup>3</sup> sprightly    | <sup>4</sup> peevish      | 129 |
| 130. dispute       | <sup>1</sup> disturb      | <sup>2</sup> question     |     |
|                    | <sup>3</sup> subdue       | <sup>4</sup> disguise     | 130 |
| 131. deplete       | <sup>1</sup> complete     | <sup>2</sup> final        |     |
|                    | <sup>3</sup> exhaust      | <sup>4</sup> fearless     | 131 |
| 132. compassionate | <sup>1</sup> sly          | <sup>2</sup> free         |     |
|                    | <sup>3</sup> respectful   | <sup>4</sup> kind         | 132 |
| 133. deter         | <sup>1</sup> meddle       | <sup>2</sup> applaud      |     |
|                    | <sup>3</sup> hinder       | <sup>4</sup> recline      | 133 |
| 134. complex       | <sup>1</sup> simple       | <sup>2</sup> compliment   |     |
|                    | <sup>3</sup> complexion   | <sup>4</sup> mixed        | 134 |
| 135. dispatch      | <sup>1</sup> discount     | <sup>2</sup> mood         |     |
|                    | <sup>3</sup> relieve      | <sup>4</sup> haste        | 135 |
| 136. venerable     | <sup>1</sup> adequate     | <sup>2</sup> aged         |     |
|                    | <sup>3</sup> youthful     | <sup>4</sup> reliable     | 136 |
| 137. conceited     | <sup>1</sup> variable     | <sup>2</sup> connected    |     |
|                    | <sup>3</sup> vain         | <sup>4</sup> conquest     | 137 |
| 138. malign        | <sup>1</sup> insure       | <sup>2</sup> slander      |     |
|                    | <sup>3</sup> muffle       | <sup>4</sup> invade       | 138 |
| 139. facile        | <sup>1</sup> fragile      | <sup>2</sup> futile       |     |
|                    | <sup>3</sup> easy         | <sup>4</sup> remote       | 139 |
| 140. empower       | <sup>1</sup> enlarge      | <sup>2</sup> permit       |     |
|                    | <sup>3</sup> surpass      | <sup>4</sup> indulge      | 140 |



# California Short-Form Test of Mental Maturity elementary GRADES '50 S-form 4-5-6-7-8

DEvised BY E. T. SULLIVAN, W. W. CLARK, AND E. W. TIEGS

Name \_\_\_\_\_ Grade \_\_\_\_\_ (CIRCLE ONE)  
Last First Middle Boy Girl  
School \_\_\_\_\_ City \_\_\_\_\_ Date of Test \_\_\_\_\_  
Month Day Year  
Examiner \_\_\_\_\_ ( ) Pupil's Age \_\_\_\_\_  
Birth \_\_\_\_\_  
Month Day Year

See MANUAL for instructions.

Factor	Test	Possible Score	Pupil's Score	Mo.	Yr.	%ile Rank for C.A.
SPATIAL RELATIONSHIPS	1. Sensing Right and Left	20*		84	7.0	
	2. Manipulation of Areas	15*		96	8.0	
	TOTAL (1+2)	35		108	9.0	
LOGICAL REASONING	3. Similarities	15*		120	10.0	
	4. Inference	15		132	11.0	
	TOTAL (3+4)	30		144	12.0	
NUMERICAL REASONING	5. Number Series	10*		156	13.0	
	6. Numerical Quantity	15		168	14.0	
	TOTAL (5+6)	25		180	15.0	
VERBAL CONCEPTS	7. TOTAL VERBAL CONCEPTS	50		192	16.0	
	TOTAL MENTAL FACTORS	140		204	17	
	LANGUAGE FACTORS (4+6+7)	80				
	NON-LANGUAGE FACTORS (1+2+3+5)	60				
	CHRONOLOGICAL AGE					
	Average Grade Placement Equivalent					
	INTELL. GRADE PLACEMENT					

\* Non-language Tests

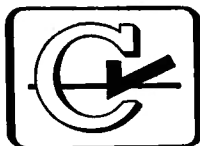
Yr. 7.0 8.0 9.0 10.0 11.0 12.0 13.0 14.0 15.0 16.0 17  
Mental Age  
Mo. 84 96 108 120 132 144 156 168 180 192 204

## SUMMARY OF DATA

	TOTAL MENTAL FACTORS	LAN. GUAGE FACTORS	NON-LANG. FACTORS
SCORES			
MA			
divided by			
CA			
equals			
I.Q.			
INTELLIGENCE GRADE PLACEMENTS			

For comparison and prediction, use I.Q. percentile norms on page 19 of Manual.

	TMF	LANG	N-L
Normal Population			
9th Grade			
10th Grade			
11th Grade			
12th Grade			
College Freshmen			
College Sophomores			
College Graduates			
Others			



Elementary • GRADES 4-5-6-7-8 • form AA

# California Test of Personality

1953 Revision

Devised by

LOUIS P. THORPE, WILLIS W. CLARK, AND ERNEST W. TIEGS

Do not write or mark on this booklet unless told to do so by the examiner.

(CIRCLE ONE)

Name..... Grade..... Boy Girl

Last

First

Middle

School..... City..... Date of Test.....

Month

Day

Year

Examiner..... (.....) Pupil's Age..... Date of Birth.....

Month

Day

Year

## INSTRUCTIONS TO PUPILS:

This booklet contains some questions which can be answered YES or NO. Your answers will show what you usually think, how you usually feel, or what you usually do about things. Work as fast as you can without making mistakes.

DO NOT TURN THIS PAGE UNTIL TOLD TO DO SO.

## INSTRUCTIONS TO PUPILS

**DO NOT WRITE OR MARK ON THIS TEST BOOKLET UNLESS TOLD TO DO SO BY THE EXAMINER.**

You are to decide for each question whether the answer is YES or NO and mark it as you are told. The following are two sample questions:

### SAMPLES

- A. Do you have a dog at home? YES NO  
B. Can you ride a bicycle? YES NO

### DIRECTIONS FOR MARKING ANSWERS

#### ON ANSWER SHEETS

Make a heavy black mark under the word YES or NO to show your answer. If you have a dog at home, you would mark under the YES for question A as shown below. If you cannot ride a bicycle, you would mark under the NO for question B as shown below.

	YES	NO
A		
B		

Remember, you mark under the word that shows your answer. Now find Samples A and B on your answer sheet and show your answer for each by marking YES or NO. Do it now. Find answer row number 1 on your answer sheet. Now wait until the examiner tells you to begin.

#### ON TEST BOOKLETS

Draw a circle around the word YES or NO, whichever shows your answer. If you have a dog at home, draw a circle around the word YES in Sample A above; if not, draw a circle around the word NO. Do it now.

If you can ride a bicycle, draw a circle around the word YES in Sample B above; if not, draw a circle around the word NO. Do it now.

Now wait until the examiner tells you to begin.

After the examiner tells you to begin, go right on from one page to another until you have finished the test or are told to stop. Work as fast as you can without making mistakes. Now look at item 1 on page 3. Ready, begin.

## SECTION 1 A

1. Do you usually keep at your work until it is done? YES NO
2. Do you usually apologize when you are wrong? YES NO
3. Do you help other boys and girls have a good time at parties? YES NO
4. Do you usually believe what other boys or girls tell you? YES NO
5. Is it easy for you to recite or talk in class? YES NO
6. When you have some free time, do you usually ask your parents or teacher what to do? YES NO
7. Do you usually go to bed on time, even when you wish to stay up? YES NO
8. Is it hard to do your work when someone blames you for something? YES NO
9. Can you often get boys and girls to do what you want them to? YES NO
10. Do your parents or teachers usually need to tell you to do your work? YES NO
11. If you are a boy, do you talk to new girls? If you are a girl, do you talk to new boys? YES NO
12. Would you rather plan your own work than to have someone else plan it for you? YES NO

**GO**

RIGHT ON TO  
THE NEXT COLUMN

Section 1 A

(number right) .....

## SECTION 1 B

13. Do your friends generally think that your ideas are good? YES NO
14. Do people often do nice things for you? YES NO
15. Do you wish that your father (or mother) had a better job? YES NO
16. Are your friends and classmates usually interested in the things you do? YES NO
17. Do your classmates seem to think that you are not a good friend? YES NO
18. Do your friends and classmates often want to help you? YES NO
19. Are you sometimes cheated when you trade things? YES NO
20. Do your classmates and friends usually feel that they know more than you do? YES NO
21. Do your folks seem to think that you are doing well? YES NO
22. Can you do most of the things you try? YES NO
23. Do people often think that you cannot do things very well? YES NO
24. Do most of your friends and classmates think you are bright? YES NO

**GO**

RIGHT ON TO  
THE NEXT PAGE

Section 1 B

(number right) .....



## SECTION 1 C

25. Do you feel that your folks boss you too much? YES NO
26. Are you allowed enough time to play? YES NO
27. May you usually bring your friends home when you want to? YES NO
28. Do others usually decide to which parties you may go? YES NO
29. May you usually do what you want to during your spare time? YES NO
30. Are you prevented from doing most of the things you want to? YES NO
31. Do your folks often stop you from going around with your friends? YES NO
32. Do you have a chance to see many new things? YES NO
33. Are you given some spending money? YES NO
34. Do your folks stop you from taking short walks with your friends? YES NO
35. Are you punished for lots of little things? YES NO
36. Do some people try to rule you so much that you don't like it? YES NO

**GO** RIGHT ON TO THE NEXT COLUMN

Section 1 C  
(number right) .....

## SECTION 1 D

37. Do pets and animals make friends with you easily? YES NO
38. Are you proud of your school? YES NO
39. Do your classmates think you cannot do well in school? YES NO
40. Are you as well and strong as most boys and girls? YES NO
41. Are your cousins, aunts, uncles, or grandparents as nice as those of most of your friends? YES NO
42. Are the members of your family usually good to you? YES NO
43. Do you often think that nobody likes you? YES NO
44. Do you feel that most of your classmates are glad that you are a member of the class? YES NO
45. Do you have just a few friends? YES NO
46. Do you often wish you had some other parents? YES NO
47. Is it hard to find friends who will keep your secrets? YES NO
48. Do the boys and girls usually invite you to their parties? YES NO

**GO** RIGHT ON TO THE NEXT PAGE

Section 1 D  
(number right) .....

## SECTION 1 E

49. Have people often been so unfair that you gave up? YES NO
50. Would you rather stay away from most parties? YES NO
51. Does it make you shy to have everyone look at you when you enter a room? YES NO
52. Are you often greatly discouraged about many things that are important to you? YES NO
53. Do your friends or your work often make you worry? YES NO
54. Is your work often so hard that you stop trying? YES NO
55. Are people often so unkind or unfair that it makes you feel bad? YES NO
56. Do your friends or classmates often say or do things that hurt your feelings? YES NO
57. Do people often try to cheat you or do mean things to you? YES NO
58. Are you often with people who have so little interest in you that you feel lonesome? YES NO
59. Are your studies or your life so dull that you often think about many other things? YES NO
60. Are people often mean or unfair to you? YES NO

**GO**

RIGHT ON TO  
THE NEXT COLUMN

Section 1 E

(number right) .....

## SECTION 1 F

61. Do you often have dizzy spells? YES NO
62. Do you often have bad dreams? YES NO
63. Do you often bite your finger-nails? YES NO
64. Do you seem to have more headaches than most children? YES NO
65. Is it hard for you to keep from being restless much of the time? YES NO
66. Do you often find you are not hungry at meal time? YES NO
67. Do you catch cold easily? YES NO
68. Do you often feel tired before noon? YES NO
69. Do you believe that you have more bad dreams than most of the boys and girls? YES NO
70. Do you often feel sick to your stomach? YES NO
71. Do you often have sneezing spells? YES NO
72. Do your eyes hurt often? YES NO

**GO**

RIGHT ON TO  
THE NEXT PAGE

Section 1 F

(number right) .....

## SECTION 2 A

73. Is it all right to cheat in a game when the umpire is not looking? YES NO
74. Is it all right to disobey teachers if you think they are not fair to you? YES NO
75. Should one return things to people who won't return things they borrow? YES NO
76. Is it all right to take things you need if you have no money? YES NO
77. Is it necessary to thank those who have helped you? YES NO
78. Do children need to obey their fathers or mothers even when their friends tell them not to? YES NO
79. If a person finds something, does he have a right to keep it or sell it? YES NO
80. Do boys and girls need to do what their teachers say is right? YES NO
81. Should boys and girls ask their parents for permission to do things? YES NO
82. Should children be nice to people they don't like? YES NO
83. Is it all right for children to cry or whine when their parents keep them home from a show? YES NO
84. When people get sick or are in trouble, is it usually their own fault? YES NO

## SECTION 2 B

85. Do you let people know you are right no matter what they say? YES NO
86. Do you try games at parties even if you haven't played them before? YES NO
87. Do you help new pupils to talk to other children? YES NO
88. Does it make you feel angry when you lose in games at parties? YES NO
89. Do you usually help other boys and girls have a good time? YES NO
90. Is it hard for you to talk to people as soon as you meet them? YES NO
91. Do you usually act friendly to people you do not like? YES NO
92. Do you often change your plans in order to help people? YES NO
93. Do you usually forget the names of people you meet? YES NO
94. Do the boys and girls seem to think you are nice to them? YES NO
95. Do you usually keep from showing your temper when you are angry? YES NO
96. Do you talk to new children at school? YES NO

**GO**

RIGHT ON TO  
THE NEXT COLUMN

Section 2 A  
(number right) .....

**GO**

RIGHT ON TO  
THE NEXT PAGE

Section 2 B  
(number right) .....

## SECTION 2 C

97. Do you like to scare or push smaller boys and girls? YES NO
98. Have unfair people often said that you made trouble for them? YES NO
99. Do you often make friends or classmates do things they don't want to? YES NO
100. Is it hard to make people remember how well you can do things? YES NO
101. Do people often act so mean that you have to be nasty to them? YES NO
102. Do you often have to make a "fuss" or "act up" to get what you deserve? YES NO
103. Is anyone at school so mean that you tear, or cut, or break things? YES NO
104. Are people often so unfair that you lose your temper? YES NO
105. Is someone at home so mean that you often have to quarrel? YES NO
106. Do you sometimes need something so much that it is all right to take it? YES NO
107. Do classmates often quarrel with you? YES NO
108. Do people often ask you to do such hard or foolish things that you won't do them? YES NO

**GO** RIGHT ON TO  
THE NEXT COLUMN

Section 2 C  
(number right) .....

## SECTION 2 D

109. Do your folks seem to think that you are just as good as they are? YES NO
110. Do you have a hard time because it seems that your folks hardly ever have enough money? YES NO
111. Are you unhappy because your folks do not care about the things you like? YES NO
112. When your folks make you mind are they usually nice to you about it? YES NO
113. Do your folks often claim that you are not as nice to them as you should be? YES NO
114. Do you like both of your parents about the same? YES NO
115. Do you feel that your folks fuss at you instead of helping you? YES NO
116. Do you sometimes feel like running away from home? YES NO
117. Do you try to keep boys and girls away from your home because it isn't as nice as theirs? YES NO
118. Does it seem to you that your folks at home often treat you mean? YES NO
119. Do you feel that no one at home loves you? YES NO
120. Do you feel that too many people at home try to boss you? YES NO

**GO** RIGHT ON TO  
THE NEXT PAGE

Section 2 D  
(number right) .....

## SECTION 2 E

121. Do you think that the boys and girls at school like you as well as they should? YES NO
122. Do you think that the children would be happier if the teacher were not so strict? YES NO
123. Is it fun to do nice things for some of the other boys or girls? YES NO
124. Is school work so hard that you are afraid you will fail? YES NO
125. Do your schoolmates seem to think that you are nice to them? YES NO
126. Does it seem to you that some of the teachers "have it in for" pupils? YES NO
127. Do many of the children get along with the teacher much better than you do? YES NO
128. Would you like to stay home from school a lot if it were right to do so? YES NO
129. Are most of the boys and girls at school so bad that you try to stay away from them? YES NO
130. Have you found that some of the teachers do not like to be with the boys and girls? YES NO
131. Do many of the other boys or girls claim that they play games more fairly than you do? YES NO
132. Are the boys and girls at school usually nice to you? YES NO

## SECTION 2 F

133. Do you visit many of the interesting places near where you live? YES NO
134. Do you think there are too few interesting places near your home? YES NO
135. Do you sometimes do things to make the place in which you live look nicer? YES NO
136. Do you ever help clean up things near your home? YES NO
137. Do you take good care of your own pets or help with other people's pets? YES NO
138. Do you sometimes help other people? YES NO
139. Do you try to get your friends to obey the laws? YES NO
140. Do you help children keep away from places where they might get sick? YES NO
141. Do you dislike many of the people who live near your home? YES NO
142. Is it all right to do what you please if the police are not around? YES NO
143. Does it make you glad to see the people living near you get along fine? YES NO
144. Would you like to have things look better around your home? YES NO

**GO**

RIGHT ON TO  
THE NEXT COLUMN

Section 2 E  
(number right) .....

**STOP**

NOW WAIT FOR  
FURTHER INSTRUCTIONS

Section 2 F  
(number right) .....

**PUBLISHED BY SCIENCE RESEARCH ASSOCIATES**

# **SRA JUNIOR INVENTORY**

**FORM A**



**57 WEST GRAND AVENUE, CHICAGO 10, ILLINOIS**

# SRA JUNIOR INVENTORY

## FORM A

Prepared by H. H. Remmers, Purdue University  
and Robert H. Bauernfeind, Carleton College

---

All of us have problems—things that bother us or worry us. In this booklet there is a list of problems mentioned by young people all over the United States.

How many of these are your problems, too?

Make a mark for each statement that is a problem to you.

For example:

1. I am too fat . . . . . 1 ☐
2. I can't read very well . . . . . 2 ☒

This boy did not mark the statement, "I am too fat," because this is not a problem for him. Some people might think he is too fat, but *he* wasn't worried about it. He did mark the statement, "I can't read very well," because he has trouble with his reading and he wants to do better.

REMEMBER, when you make a mark it means that you really think it is a problem for you. If you don't make a mark, it means that it is not a problem for you. Problems are things that bother you or worry you.

You have an answer sheet to mark on. If it looks like this

- 1 ☐
- 2 ☐
- 3 ☐

mark your answers this way: 1 ☒. If you change your mind. **DO NOT ERASE.** Put a circle around the box like this ☒ to show you did not mean to mark it. If your answer sheet looks this

- 1 ::
- 2 ::
- 3 ::

use the special pencil you were given. Mark your answers this way: 1 ☒. If you change your mind, erase the whole mark.

Be sure you put the answers to each page in the proper column. Every time you turn a page, be sure the statements line up with the spaces on the answer sheet.

**NOW TURN THE PAGE AND GO AHEAD**

---

## List of Words

Sometimes young people find words in this booklet that they don't understand. If you find a word you don't know, look for it in the list below. It may help you understand it. If the word isn't in the list, ask your teacher.

**BASHFUL**—A *bashful* person feels funny among strangers.

**BOSSY**—A *bossy* person likes to order everybody around.

**BREATHE**—You *breathe* when air goes in and out your nose and mouth.

**CRABBY**—A *crabby* person is cross and cranky.

**DIZZY**—When you feel *dizzy*, you feel like you are going round and round and are falling down.

**GYM**—Gym is the school class in which you play games and do exercises.

**ITCH**—If you *itch*, you want to scratch.

**NERVOUS**—A *nervous* person gets excited and bothered a lot.

**"PEP"**—Somebody who has "pep" has lots of energy.

**PIMPLES**—*Pimples* are little red bumps on the skin.

**SNEEZE**—When you sneeze, you go "kerchoo." Pepper makes you sneeze.

**SOCIAL STUDIES**—Geography and history are *social studies*.

**SORES**—Sores are places on the skin that hurt.

**"SPOILED"**—A "*spoiled*" kid always gets his own way at home.

**STOMACH**—The *stomach* is the place food goes after you eat it.

**THUMPING**—*Thumping* is a noise like pounding or knocking.



# My Health

1

1. I wish I didn't have pimples on my face . . . . .
2. Sometimes it hurts when I breathe . . . . .
3. I get out of breath when I run or play . . . . .
4. I cough a lot in the morning . . . . .
5. My feet hurt when I play . . . . .
6. My feet hurt all the time . . . . .
7. I have sores between my toes . . . . .
8. My eyes itch . . . . .
9. My eyes hurt a lot . . . . .
10. Sometimes my ears hurt . . . . .
11. My nose bleeds a lot . . . . .
12. My teeth hurt . . . . .
13. My head hurts a lot . . . . .
14. My throat hurts a lot . . . . .
15. My chest hurts . . . . .
16. I have a thumping in my chest . . . . .
17. My stomach hurts a lot . . . . .
18. My back hurts . . . . .
19. My arms hurt a lot . . . . .
20. My hand hurts a lot . . . . .
21. My fingers hurt . . . . .
22. I can't hold on to my pencil . . . . .
23. My legs hurt a lot . . . . .
24. My hand shakes too much . . . . .
25. Sometimes I get real dizzy . . . . .
26. I get tired of sitting . . . . .
27. I have little sores on my skin . . . . .
28. I have to pick my nose a lot . . . . .
29. I sneeze a lot . . . . .
30. My skin itches . . . . .

31. It hurts when I go to the toilet . . . . .
32. I'm sick a lot . . . . .
33. I have a lot of colds . . . . .
34. I "throw up" a lot . . . . .
35. I have no "pep" . . . . .
36. I can't hear very well . . . . .
37. I can't see very well . . . . .
38. I am hungry a lot . . . . .
39. I don't like to eat . . . . .
40. I am always so sleepy . . . . .
41. I am not strong enough . . . . .
42. I am too fat . . . . .
43. I am too thin . . . . .
44. My glasses make my eyes hurt . . . . .
45. Sometimes I wet my bed . . . . .

## Getting Along With Other People

46. I need more friends . . . . .
47. I can't make friends with very many kids . . . . .
48. I can't run as fast as the other kids . . . . .
49. I don't like people . . . . .
50. People don't like me very much . . . . .
51. People are too bossy . . . . .
52. People treat me like a little kid . . . . .
53. People make fun of me . . . . .
54. People won't answer my questions . . . . .
55. People don't think I'm ever right . . . . .
56. People won't help me . . . . .
57. I'm afraid of people . . . . .
58. People think I'm "spoiled" . . . . .

59. People think I'm a "sissy" . . . . .
60. People think I'm too loud . . . . .
61. People think I'm too crabby . . . . .
62. I fight too much . . . . .
63. I always say the wrong thing at the wrong time . . . . .
64. The kids call me names . . . . .
65. The kids pick on me . . . . .
66. The kids chase me home . . . . .
67. The kids won't play with me . . . . .
68. The girls don't like to play with me . . . . .
69. The boys don't like to play with me . . . . .
70. I'd rather play with little kids . . . . .
71. The kids think I'm too smart . . . . .
72. The kids laugh at me . . . . .
73. I'm afraid to talk to people . . . . .
74. I'd like to have at least one good friend . . . . .
75. People don't like my friends . . . . .
76. I'd like to learn how to dance . . . . .
77. I wish people would leave me alone . . . . .
78. Nobody likes me . . . . .
79. People hurt my feelings . . . . .
80. I don't know how to act at a party . . . . .
81. I don't like the girls . . . . .
82. I don't like the boys . . . . .
83. I can't work with people . . . . .
84. I don't know how to talk to people . . . . .
85. I don't know why people get mad at me . . . . .
86. I'd like to know more about boys . . . . .
87. I'd like to know more about girls . . . . .
88. I'm not invited to parties . . . . .

## ABOUT ME AND MY SCHOOL

89. I don't like school . . . . .
90. I don't like our school books . . . . .
91. I don't like arithmetic . . . . .
92. I don't like spelling . . . . .
93. I don't like reading . . . . .
94. I don't like writing . . . . .
95. I don't like history . . . . .
96. I don't like geography . . . . .
97. I don't like social studies . . . . .
98. I don't like gym . . . . .
99. I don't like music . . . . .
100. I don't like art . . . . .
101. I don't get good grades in school . . . . .
102. I don't see why I have to go to school . . . . .
103. I can't remember my schoolwork . . . . .
104. I'd like to find some good books to read . . . . .
105. I'd like to join a club in school . . . . .
106. I'd like to have a garden at school . . . . .
107. I'd like to paint more in school . . . . .
108. I'd like to have more music in school . . . . .
109. I'd like to do more things in school . . . . .
110. Our schoolroom gets too hot . . . . .
111. Our schoolroom gets too cold . . . . .
112. Our schoolroom is too dark . . . . .
113. Our schoolroom is too dirty . . . . .
114. I can't read very well . . . . .
115. I can't write very well . . . . .
116. I can't spell very well . . . . .
117. I can't do arithmetic very well . . . . .
118. I'm afraid of tests . . . . .

- 119. I always get in trouble in school . . . . .
- 120. I'm not smart enough . . . . .
- 121. I don't like teachers . . . . .
- 122. Teachers pick on me . . . . .
- 123. Teachers make fun of me . . . . .
- 124. Teachers won't answer my questions. . . . .
- 125. Teachers use words I don't know . . . . .
- 126. Teachers don't help me . . . . .
- 127. Teachers don't like me . . . . .
- 128. Teachers are too bossy . . . . .
- 129. I'm afraid of teachers . . . . .
- 130. I don't have any fun in school . . . . .
- 131. I'd like to quit school now . . . . .
- 132. My schoolwork is too easy . . . . .

## About Myself

- 133. I am not nice-looking . . . . .
- 134. I bite my fingernails too much . . . . .
- 135. I'm afraid someone will hit me . . . . .
- 136. I can't do anything right . . . . .
- 137. I feel bad about things I do . . . . .
- 138. I tell too many lies . . . . .
- 139. I feel mad most of the time . . . . .
- 140. I'm afraid my mother or daddy might die . . . . .
- 141. Sometimes I wish I was dead . . . . .
- 142. Sometimes I have to steal things . . . . .
- 143. I swear too much . . . . .
- 144. I get mad too much . . . . .
- 145. I do things I shouldn't do . . . . .
- 146. I want to be good and I can't . . . . .
- 147. I don't know what is wrong with me . . . . .

148. I don't have much fun . . . . .
149. I worry too much . . . . .
150. I'd like to be a boy . . . . .
151. I'd like to be a girl . . . . .
152. I can't talk very well . . . . .
153. I'd like more clothes . . . . .
154. I'd like a pet animal . . . . .
155. I'm afraid of animals . . . . .
156. I wish I could do more things by myself . . . . .
157. I'd like to get a job . . . . .
158. I wish I was good in games . . . . .
159. I'm afraid of loud noises . . . . .
160. I'm afraid of the doctor . . . . .
161. I'm afraid of the dentist . . . . .
162. I'm afraid of the dark . . . . .
163. I'm afraid to be home alone at night . . . . .
164. I'd like to know what I'm going to be when I grow up . . . . .
165. I am too nervous . . . . .
166. I am too short . . . . .
167. I am too tall . . . . .
168. I am too bashful . . . . .
169. I am too loud . . . . .
170. I am too careless . . . . .
171. I am too bossy . . . . .
172. I am too crabby . . . . .
173. I can't go to sleep at night . . . . .
174. I have bad dreams . . . . .
175. I talk too much . . . . .
176. I can't sit still . . . . .
177. I don't have enough money . . . . .

## About Me And My Home

178. I wish we had more money . . . . .
179. I'd like to have my own room . . . . .
180. I don't like to take music lessons . . . . .
181. I don't like to rest when the other kids are playing . . . . .
182. I wish I could take music lessons . . . . .
183. I wish I could go to more movies . . . . .
184. I don't have enough things to play with . . . . .
185. I wish we had a nice house . . . . .
186. I don't like my home . . . . .
187. I wish my daddy was home more . . . . .
188. I wish my mother would come back . . . . .
189. I'd like to have a brother or sister . . . . .
190. I don't like my clothes . . . . .
191. I wish I didn't have a brother . . . . .
192. I wish I didn't have a sister . . . . .
193. I wish my daddy would play with me more . . . . .
194. I wish my mother would play with me more . . . . .
195. My mother is too bossy . . . . .
196. My daddy is too bossy . . . . .
197. My brother is too bossy . . . . .
198. My sister is too bossy . . . . .
199. I don't like my brother . . . . .
200. I don't like my sister . . . . .
201. I wish my mother liked me more . . . . .
202. I wish my daddy liked me more . . . . .
203. My mother and daddy often fight . . . . .
204. My mother treats me like a little kid . . . . .
205. My daddy treats me like a little kid . . . . .
206. My mother won't help me . . . . .
207. My daddy won't help me . . . . .

- 208. I don't like babies . . . . .
- 209. My mother makes fun of me . . . . .
- 210. My daddy makes fun of me . . . . .
- 211. My mother doesn't think I'm ever right . . . . .
- 212. My daddy doesn't think I'm ever right . . . . .
- 213. My mother won't answer my questions . . . . .
- 214. My daddy won't answer my questions . . . . .
- 215. I'm afraid of my mother . . . . .
- 216. I'm afraid of my daddy . . . . .
- 217. I'm afraid of my sister . . . . .
- 218. I'm afraid of my brother . . . . .
- 219. My home gets too hot . . . . .
- 220. My home gets too cold . . . . .
- 221. My home is too dark . . . . .
- 222. My home is too dirty . . . . .
  
- 223. I have to do too much work at home . . . . .



# ANSWER PAD

(FORM AH)

## for SRA JUNIOR INVENTORY

Prepared by

H. H. Remmers and Robert H. Bauernfeind

Write here anything you wish to  
add about your problems.

GROUP

DATE TESTED

SEX

AGE

NAME

THERE IS MORE SPACE ON THE BACK PAGE.

Published by  
SCIENCE RESEARCH ASSOCIATES, Inc.  
57 West Grand Avenue  
Chicago 10, Illinois.

Copyright, 1951, by  
Purdue Research Foundation.  
All rights reserved.  
Copyright under the  
International Copyright Union.

Printed in U.S.A.

Potent Pending

Please use number 7-1482 when reordering  
this answer pad.

208	178	148	119	89	59	31	1
209	179	149	120	90	60	32	2
210	180	150	121	91	61	33	3
211	181	151	122	92	62	34	4
212	182	152	123	93	63	35	5
213	183	153	124	94	64	36	6
214	184	154	125	95	65	37	7
215	185	155	126	96	66	38	8
216	186	156	127	97	67	39	9
217	187	157	128	98	68	40	10
218	188	158	129	99	69	41	11
219	189	159	130	100	70	42	12
220	190	160	131	101	71	43	13
221	191	161	132	102	72	44	14
222	192	162		103	73	45	15
223	193	163	133	104	74		16
	194	164	134	105	75		17
	195	165	135	106	76	46	18
	196	166	136	107	77	47	19
	197	167	137	108	78	48	20
	198	168	138	109	79	49	21
	199	169	139	110	80	50	22
	200	170	140	111	81	51	23
	201	171	141	112	82	52	24
	202	172	142	113	83	53	25
	203	173	143	114	84	54	26
	204	174	144	115	85	55	27
	205	175	145	116	86	56	28
	206	176	146	117	87	57	29
	207	177	147	118	88	58	30

# **DIRECTIONS FOR SCORING**

First, find your score for area 1. Start at the arrow next to number 1 on the left side of this page. Follow the chain of squares. Count all the squares that are marked like this ☒. Do not count blank squares that look like this ☐, or squares that look like this ☒.

Write the number of ☒'s in the box at the end of the chain at the bottom of the page. This number is your score for area 1. Check your score by starting at the bottom of the chain and counting back up to the arrow.

Find your scores for areas 2 through 5 in the same way.

1	<input type="checkbox"/> 31	59	<input type="checkbox"/>	89	<input type="checkbox"/> 119	148	<input type="checkbox"/>	178	<input type="checkbox"/> 208
2	<input type="checkbox"/> 32	60	<input type="checkbox"/>	90	<input type="checkbox"/> 120	149	<input type="checkbox"/>	179	<input type="checkbox"/> 209
3	<input type="checkbox"/> 33	61	<input type="checkbox"/>	91	<input type="checkbox"/> 121	150	<input type="checkbox"/>	180	<input type="checkbox"/> 210
4	<input type="checkbox"/> 34	62	<input type="checkbox"/>	92	<input type="checkbox"/> 122	151	<input type="checkbox"/>	181	<input type="checkbox"/> 211
5	<input type="checkbox"/> 35	63	<input type="checkbox"/>	93	<input type="checkbox"/> 123	152	<input type="checkbox"/>	182	<input type="checkbox"/> 212
6	<input type="checkbox"/> 36	64	<input type="checkbox"/>	94	<input type="checkbox"/> 124	153	<input type="checkbox"/>	183	<input type="checkbox"/> 213
7	<input type="checkbox"/> 37	65	<input type="checkbox"/>	95	<input type="checkbox"/> 125	154	<input type="checkbox"/>	184	<input type="checkbox"/> 214
8	<input type="checkbox"/> 38	66	<input type="checkbox"/>	96	<input type="checkbox"/> 126	155	<input type="checkbox"/>	185	<input type="checkbox"/> 215
9	<input type="checkbox"/> 39	67	<input type="checkbox"/>	97	<input type="checkbox"/> 127	156	<input type="checkbox"/>	186	<input type="checkbox"/> 216
10	<input type="checkbox"/> 40	68	<input type="checkbox"/>	98	<input type="checkbox"/> 128	157	<input type="checkbox"/>	187	<input type="checkbox"/> 217
1	<input type="checkbox"/> 41	69	<input type="checkbox"/>	99	<input type="checkbox"/> 129	158	<input type="checkbox"/>	188	<input type="checkbox"/> 218
2	<input type="checkbox"/> 42	70	<input type="checkbox"/>	100	<input type="checkbox"/> 130	159	<input type="checkbox"/>	189	<input type="checkbox"/> 219
3	<input type="checkbox"/> 43	71	<input type="checkbox"/>	101	<input type="checkbox"/> 131	160	<input type="checkbox"/>	190	<input type="checkbox"/> 220
4	<input type="checkbox"/> 44	72	<input type="checkbox"/>	102	<input type="checkbox"/> 132	161	<input type="checkbox"/>	191	<input type="checkbox"/> 221
5	<input type="checkbox"/> 45	73	<input type="checkbox"/>	103	<input type="checkbox"/>	162	<input type="checkbox"/>	192	<input type="checkbox"/> 222
6	<input type="checkbox"/>	74	<input type="checkbox"/>	104	<input type="checkbox"/> 133	163	<input type="checkbox"/>	193	<input type="checkbox"/> 223
7	<input type="checkbox"/>	75	<input type="checkbox"/>	105	<input type="checkbox"/> 134	164	<input type="checkbox"/>	194	<input type="checkbox"/>
8	<input type="checkbox"/> 46	<input type="checkbox"/> 76	106	<input type="checkbox"/> 135	165	<input type="checkbox"/>	195	<input type="checkbox"/>	
9	<input type="checkbox"/> 47	<input type="checkbox"/> 77	107	<input type="checkbox"/> 136	166	<input type="checkbox"/>	196	<input type="checkbox"/>	
0	<input type="checkbox"/> 48	<input type="checkbox"/> 78	108	<input type="checkbox"/> 137	167	<input type="checkbox"/>	197	<input type="checkbox"/>	
1	<input type="checkbox"/> 49	<input type="checkbox"/> 79	109	<input type="checkbox"/> 138	168	<input type="checkbox"/>	198	<input type="checkbox"/>	
2	<input type="checkbox"/> 50	<input type="checkbox"/> 80	110	<input type="checkbox"/> 139	169	<input type="checkbox"/>	199	<input type="checkbox"/>	
3	<input type="checkbox"/> 51	<input type="checkbox"/> 81	111	<input type="checkbox"/> 140	170	<input type="checkbox"/>	200	<input type="checkbox"/>	
4	<input type="checkbox"/> 52	<input type="checkbox"/> 82	112	<input type="checkbox"/> 141	171	<input type="checkbox"/>	201	<input type="checkbox"/>	
5	<input type="checkbox"/> 53	<input type="checkbox"/> 83	113	<input type="checkbox"/> 142	172	<input type="checkbox"/>	202	<input type="checkbox"/>	
6	<input type="checkbox"/> 54	<input type="checkbox"/> 84	114	<input type="checkbox"/> 143	173	<input type="checkbox"/>	203	<input type="checkbox"/>	
7	<input type="checkbox"/> 55	<input type="checkbox"/> 85	115	<input type="checkbox"/> 144	174	<input type="checkbox"/>	204	<input type="checkbox"/>	
8	<input type="checkbox"/> 56	<input type="checkbox"/> 86	116	<input type="checkbox"/> 145	175	<input type="checkbox"/>	205	<input type="checkbox"/>	
9	<input type="checkbox"/> 57	<input type="checkbox"/> 87	117	<input type="checkbox"/> 146	176	<input type="checkbox"/>	206	<input type="checkbox"/>	
0	<input type="checkbox"/> 58	<input type="checkbox"/> 88	118	<input type="checkbox"/> 147	177	<input type="checkbox"/>	207	<input type="checkbox"/>	

**SRA JUNIOR INVENTORY  
ANSWER PAD**

**DO NOT WRITE HERE**

**WRITE HERE**

[illegible]